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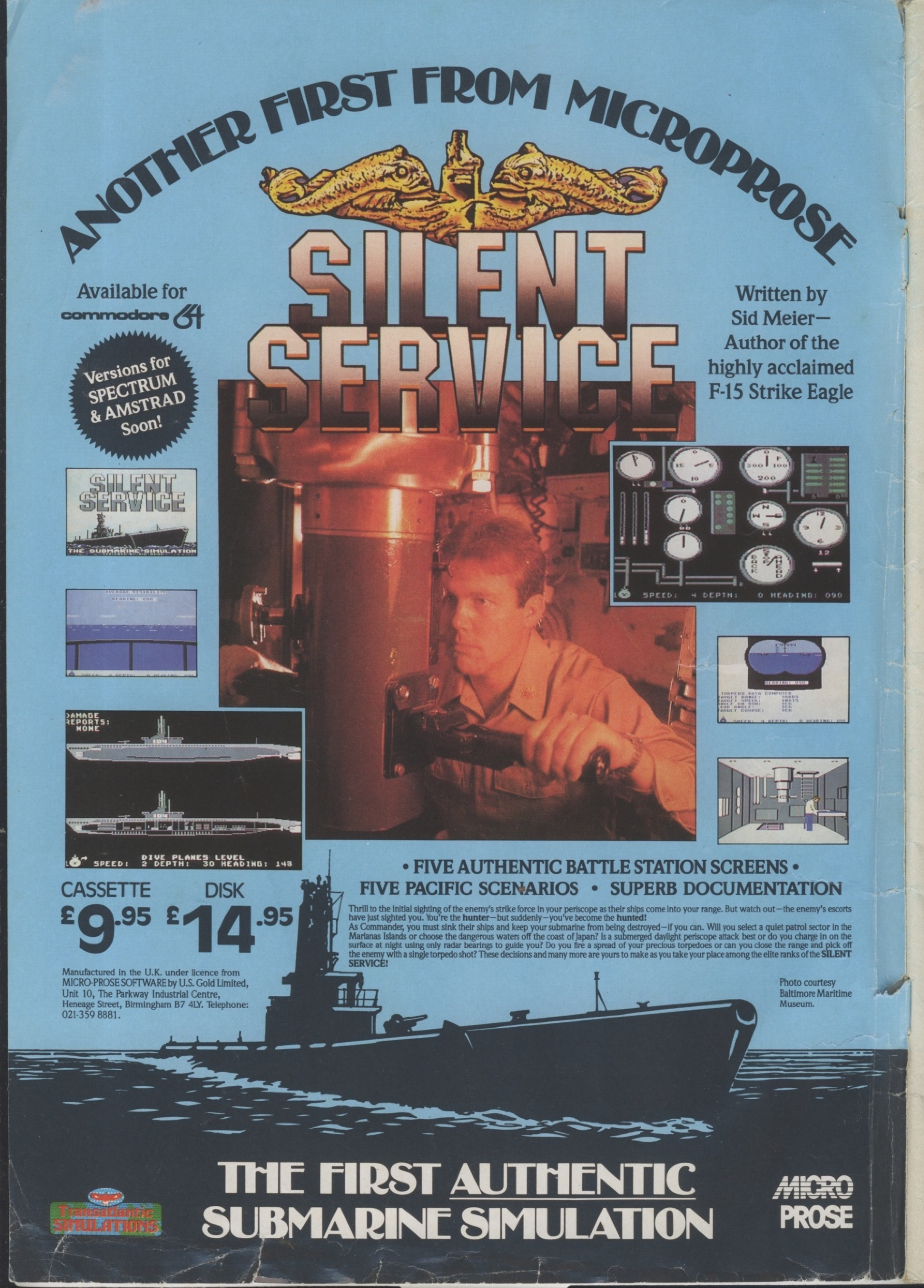
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MAY



PEOPLE

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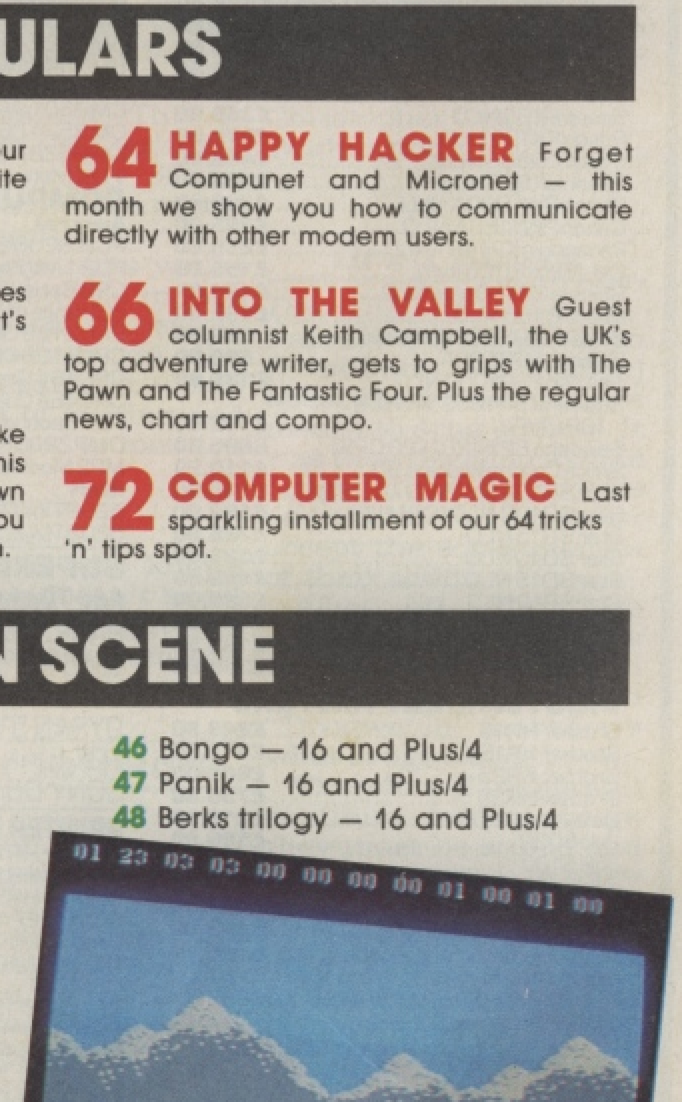
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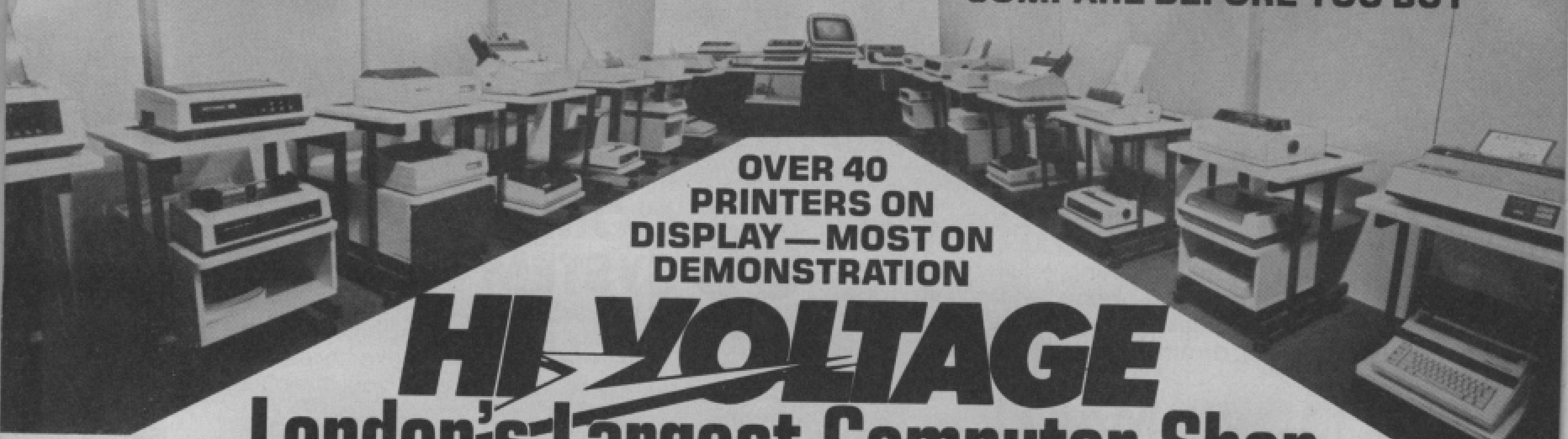
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Write to use and win yourself a T-shirt (S,M,L). Letters to: Feedback, Commodore User, 30-32 Farringdon Lane EC1R 3AU.

Blue Peter badge

Dear CU,
My son has gone through three joysticks playing "Summer Games II" and his latest "Human Race", (good joystick busting games). So I made a simple modification to his only remaining Quickshot II.

I obtained two fruit machine micro switch buttons from an arcade engineer and bought a double pole toggle switch, 5 pin din plug and socket and a bit of multicore cable and a suitable plastic box.

First I mounted the 5 pin din socket in the side of the joystick and linked the four direction and the common cable to the din pins. Then mounted the fruit machine switches in the box wired them through the switch which changes the buttons from left/right to up/Down, then put the 5 pin plug on the end of the cable. Now he has Arcade style buttons. He says they are faster than his joystick wiggling too.

Colin Patterson,
Lancashire.

• Great idea, Colin. And it sounds really easy to do.

Elite Bragger

Dear CU,
I am an *Elite* pilot, I became Elite in October 85. It took me a mere 4 weeks to become Elite. I am fed up with seeing pathetic little complaints from pathetic, 'above average' pilots who most of the time don't know what the hell they're going on about.

If there are any other decent pilots out there apart from me and Fred Reid, sort this one out. A spaceship invisible to radar, takes more shots than the constrictor and looks like a gone wrong Krait.

I've experienced this craft at two planets, Orbequso and Rain, in galactic charts 6 and 8 respectively. This craft makes hell of my Naval Energy Units.

I phoned up Firebird software and they didn't know what I was on about. Maybe I'm going mad with post Elite stress disorder!

If Fred Reid is as good as he's made out to be he would have found and blown up one of those like I have.

Commander Charlie,
Yeovil.

Monochrome moan

Dear CU,
Have you ever tried watching snooker on a black and white television? I'm sure that some have and will know how frustrating it is, not knowing what colour ball has been potted and so on.

The same applies to some computer games. They are nearly impossible to play properly on a black and white television. A classic example is Mama Llama, where chosing the right colour can mean the difference between life and death.

All I would like is for software houses to make their games a little easier to play on a black and white television. Some of us can't use a colour television.

David Lyvet,
Essex.

• Actually, I try watching snooker with the TV off. We take your point — what there was of it.

Speed Freak

Dear CU,
I have had a C16 for two years now and I am quite pleased with the results of the machine, except the only drawback is that it takes forever to load in machine-code and Basic written games. This is the reason I am writing.

Do you or any of the readers know of a turbo-load program for the C16? Many users would be glad if you do, I'm sure I can speak on everybody's behalf on the matter because it would save a lot of waiting and boredom, not to mention hassle!

Stewart Boyle,
Strathclyde.

• Our man who knows everything doesn't know about this (caught out again). Must be someone out there who knows!

Driver software

Dear CU,
I have found three ways of helping the full use of the Plus/4. I have found that if you type the ESCape key and F2, you don't have to type LOAD "programme name". You can also do this with the SAVE command by typing ESCape and then F5.

I have also found that instead of having to press the reset key with run/stop, and then X to leave TEDMON, you can type SYSTIME to perform a Run/stop Restore.

David Shirley,
Northampton.

• Er, we'll take your word for all that. I'm sure Plus/4 readers will now be very happy.

Off the Hook

Dear CU,
I am writing about a letter in your March issue of Commodore User in the 'Feedback' page entitled 'Sweet Charity'.

How can anyone be so stupid and selfish to say that drug addicts should not be helped. Does he know what it is like? It seems not. I am definitely not saying that drugs are right but people like Bruce Allen are as bad as the drug addicts themselves!

Anyway, what right does he have to say how, where and when people should spend their money?

Christopher Taggart,
Workington.

Drug Abuse

Dear CU,
I agree with Bruce Allen (Feedback — March) about the decision to give money to drug addicts. It was their decision to take drugs in the first place and therefore they must accept the consequences of their action.

After all, there are enough adverts, stories in the newspapers and even a program called "Drugwatch" that shows what drugs can do to you.

Therefore if people still continue taking drugs they must be stupid and don't deserve money being spent on them.

This money should be used to help find cures for various diseases or given to help people like the men of the R.N.L.I. who save so many lives each year, risking their own in the process.

S. Perriam,
Devon.

Wild Bill Hits Town



'Wild' Bill Stealey, the eccentric boss of leading American simulation firm Microprose, flew in to London recently to announce plans to beef up his operation in the UK.

For the last two years the excellent range of Microprose simulations have been imported to the U.K. by U.S. Gold, and they will also be handling the next six titles including *Silent Service*, the submarine simulation (reviewed in this month's Screen Scene).

Whilst on a recent visit to the U.K. Stealey told CU he believed the market for simulation software was about to take off in a big way as people were tiring of simple arcade games and wanted something a bit more challenging.

"We have to educate the public. They are currently confusing cheapness with value for money. One of our simulations can keep you hooked for literally months, years even, where as you will tire of a £2 shoot 'em up in an afternoon".

To help in this education Microprose have already appointed a full time U.K. representataive and are seeking a managing director to run the London office.

One benefit to budding U.K. games writers of the Microprose U.K. operation is that the London office will be given a brief to look out for good software with a view to selling it in the U.S.

"I am most impressed with the standard of programming in the U.K., some really excellent 64 product has been developed here recently," said Stealey.

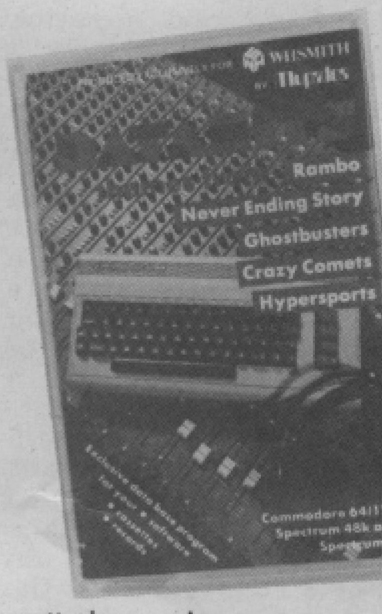
Wild Bill also scotched the popular U.K. view that American software houses were pulling out of 64 games in favour of ST, and Amiga software. "That is completely untrue. It got around because Trip Hawkins (boss of Electronic Arts) said it recently. We will be developing Amiga and ST games, but our main priority for the forseeable future is to the 8 bit machines, and that means the Commodore 64", he said.

• Shorts •

Cascade Connection: Good news if you're a C128 owner who also happens to possess a Microvitec monitor. Until now, you couldn't connect the two because the Microvitec works on the RGB TTL format. So it's Cascade to the rescue with a device that links the monitor to the RGBI output on the 128, giving 80 columns and eight colours. The cable costs £19.95 and you can get more details on 0423 504526.

Looney Tunes

Did you ever funk crucially around the room when you played *Rambo*, or freak out to the *Crazy Comets* theme? You didn't? Neither did our G-Force groovers until they heard the new *Datahits* tape.



Datahits is a new idea from Mupados, which puts the theme tunes from five top computer games onto an audio tape (disco mix). And here's the Top Five rundown: *Rambo, Neverending Story, Ghostbusters, Crazy Comets* and *Hypersports* (you know, the Chariots of Fire theme).

Although all the tracks were created using a 64, they're nothing like the originals. That's not surprising since no less than the Commodore *Sound Sampler, Sound Expander, Music Studio* and the *Syntron Digidrum* were used to record them. And the results are pretty impressive.

• Datahits costs £4.95 (there's a database on the B side) and is exclusive to W.H. Smith. But you can hear the sounds thumping out on our stand at the Commodore Show (9-11 May) and get the chance to win one of fifty copies we'll be handing out.

Unwanted Mail

CU is getting the strangest mail these days. What do you make of this series of letters, sent one after another, throughout last week? *Day One:* one word letter consisting of the word "Kwah". *Day Two:* "Melbourne House". *Day Three:* "Say Kwah". *Day Four:* "Je Ne say Kwah". *Day five:* Kevin say Kwah". *Day six:* "Kevin + Say Kwah = Red Hawk".

Of course the hard-nosed news hounds in the CU office saw through this thinly disguised publicity exercise straight away.

If Melbourne House think they're going to get us to write about a new adventure game called *Red Hawk*, staring the bungling superhero mentioned in the title, and using a completely new comic-strip technique with three separate pictures on screen at any one time, just by sending us a heap of silly letters, then they can forget it.

Look out for *Red Hawk* in mid-May and don't forget to say "Kwah" to anyone you happen to meet.

• Shorts •

Chip Factory: At last, a new game from Commodore stalwarts Audiogenic — and it's for the C16. Called Chip Factory, it's a game in which Charlie has to keep the production line of chips (the silicon variety) flowing steadily. Sounds fun? Audiogenic reckons it's "pure unpretentious fun" — for £6.95. We'll be finding out next month.

• Shorts •

More cheapies: CRL is the latest software house to join the MFI school of price-cutting. It's just launched the cheapo 'Alpha-Omega' label which will sell software for just £4.99 and £1.99. In the upper bracket, you'll get *Vidcom 64*, a graphics package that lets you switch between hi-res and multi-colour graphics. Down in the £1.99 league there's *Return of the Space Warriors* (arcade action) for the 64 and *Baby Berks* for the 16 and Plus/4. A-O can be contacted on 01-985.6877.

• Shorts •

Ins and Outs: They're playin' those musical chairs at Commodore again. You'll remember that when the music stopped last time, Jack Tramiel sat down in the Atari seat (very comfy) and Marshall Smith got the Commodore Big Chair (not so comfy). Now that the Big Chair is positively uncomfortable, they're moving again. And as the music stops, Terence Rattigan (erstwhile bigshot at Pepsi), slides into the Big Chair and out goes Marshall Smith. More musical fun soon.

Late Arrivals

The back-log of games waiting to be launched is growing again. Leading the field (surprise, surprise) are Ocean with still to be launched *'V'*, *Street Hawk*, *Knightrider* and *Daley Thompson's Super Test*.

PSS are also doing very nicely with *Swords and Sorcery*, now nearly two years late for review.

Max Headroom g-g-gets in on the act with his game — now two months late on the 64.

C16 manufacturers are proving that they can be just as late to come up with the goods as the 64-houses. Doing well here are Tynesoft with *Jet Set Willy*.

The situation with late games may not be quite as amusing if you've already sent off a cheque to one of the advertisers who announced a game and quoted a price before actually having the game in stock.

A number of our disgruntled readers have had to wait several weeks for their games even after their cheques had been cashed — naughty, naughty. Our advice is to make sure the supplier definitely has the game in stock before sending off any money.



You're looking at sizzling Sam Fox's hairy armpits as digitally presented in Martech's Samantha Fox Strip Poker. *Our writer refused to submit his review until he's beaten the game. Next month maybe. . .*

• Shorts •

Log your callsign: Tuned in radio hams may be thrilled to know that Moray Micros has developed a station callsign logging program called Turbo-Log for the 64, 128, 16 and Plus/4. It's designed to make already logged callsigns easier and faster to check, and to log new ones (together with date, time and bandwidth) by pressing just one key — so you spend more time twiddling knobs than bashing computer keys. It costs £14.95 on tape, £16.95 on disk. Don't radio Moray, just call them on 05427 384 for more info.

It's for You-hoo

Phone-in mania is sweeping the games world. Commodore User started it all off with our Phone-In competition in the March issue when we asked you to phone our Games line number, listen to the sound tracks, and identify them to win a prize.

Now Beyond have set up their own games-line to update the games players on the story of Midnight.

The complete Doomdark story lasts thirty five minutes so expect a hefty phone bill if you want to catch the whole saga.

But at least you don't have to listen to the whole thing in one go. The tale has been broken into 13 separate instalments and will be run across separate evenings.

Beyond reckons the phone-in idea will help sell copies of the game, and that the promotion may even be used for some of the company's other games.

A spokesman told CU, "*Doomdark's Revenge* is ideally suited for the phone-in promotion as we had already produced the story tape to be packaged with the game".

But gamers outside the London area will not be able to phone the Doomdark line as the operators of the system cannot yet supply the phone-in service nationwide.

You'll find the number on Beyond's magazine advertisements appearing in May issues of magazines. □

Load 'N' Go

Argus Software has announced a range of budget disk-based 'productivity' software available for the 64/128.

Licenced from American company Sharedata Inc the package comes in a bubble packed range called **Load 'N' Go** — so called because it needs no independent documentation.

Among the range of utilities available at £7.99 is an Electronic Scheduler (that's a diary to you and me), a spreadsheet, database, Home and Business Card File (a kind of address book) and Masterword, a word-processor which also provides you with a set number of letters including an option for love letters!

Also available in this range is a Utility Cartridge at £14.99 with over thirty claimed functions including program recovery and screen dumping.

John Zentz, President of Sharedata Inc the American company responsible for developing this cheap software hopes it will have the same result as it had in his own country. The cheapness of the software will encourage disk ownership.

In America he kept costs down by selling direct to stores and supermarkets around the country. "I thought I might end up with a lead suit", he smiles, "But it worked out in the end — sales went through the roof".

Will his strategy work over here? "We're not assured, we don't have all the answers," he opens up. "We understand there are fewer disk owners over in the UK, but we think we can encourage people to buy." Can this man start the Great British Disk Revolution singlehandedly? Stay tuned, we'll be looking at Load 'N' Go next ish.



• Shorts •

Utility disk: A new utility disk for the 64 and 1541 is now available from impressively named Initiative Managers Ltd. Called *Discom 64/1541*, it offers the usual file backup, rename, scratch, unscratch and protect facilities. There's also disk backup, disk protect and easy access to the 64's DOS. For £14.94 you get the disk and a short manual. More details on 06845 60701.

SHOW PREVIEW

The 7th Annual Commodore Show blasts off on the weekend of 9-11th of May. The venue is one of London's plushest hotels (You've gotta be kidding. Ed). *Well — one of the biggest anyway — the Novotel at Hammersmith.*

If you are thinking of going to the show, here's what you will find there. Take this with you if you are going — it will save you having to buy an inferior guide when you get there.

How Much? *Adults £3.00. Under 16's £2.00.*
Times: *10am-6pm (4pm on Sunday)*
How To Get There? *Hammersmith Tube Station (Metropolitan, District, Piccadilly Lines) Buses (73, 9, 11, 220, 714, 716, 298, 74b and 72).*
How To Use This Guide Exhibitors are listed alphabetically with their stand number in brackets after their name. Only exhibitors that had booked by 25th March are mentioned — so there's probably a few more.

Anirog (106) Anirog will be showing off their C16 Plus/4 *Winter Sports* game which they say has graphics which will rival the Epyx 64 blockbuster — Winter Games. 64/128 *Thai Boxing* a 3D style combat game will also be on display.

Bubble Bus (148) are majoring on the 64 conversion of their Spectrum smash hit, *Star Quake*. Budget games *Boing* and *Metronaut* are also on offer.

Commodore — obviously the biggest attraction since the Amiga will be 'officially' launched. There'll be an Amiga village and regular musical performances using the Commodore Music System.

Commodore User (108) Come along for a chat and meet the people who write your favourite magazine each month. The G Force will be there to talk games, swap some opinions with you on the best games around and accept a challenge or two on this month's Screen Stars. Bring some cash with you because we'll be offering lots of bargain goodies with all proceeds going to the Off the Hook charity. We will also be demonstrating the latest Amiga games, offering spot prizes, playing loud music from the Datahits package and generally having a good time — so if you want some fun get straight along to stand 62.

Data Star (72 & 73) If it's a printer you're after Data Star will have the new ML10 printer up and running on their stand as well as a number of show special offers.

Duckworth (101) Complete range of books for Commodore computers, including the latest releases for the C16.

First Publishing (30) Technical books and utility software for all Commodore computers.

Gemini (47) will be sharing a stand with the leading distributor — Centresoft. Their full range of products — including Office Mate and Office Master will be on display and available for purchase at a special show discount price.

Gulltronics (89) London based hardware shop. Probably the capital's best stocked Commodore shop. You will find their prices and range of Commodore kit hard to beat.

I.C.P.U.G. — stands for the Independent Commodore Products User Group. You can join this group of enthusiasts at the show and learn about their activities. Special guest star on the ICPUG stand is Jim Butterfield — the acknowledged world authority on all things Commodore. If you want to pick his brains and meet up with other CBM boffins then get along to the ICPUG stand to take part in one of their "Your Questions Answered" sessions.

Llamasoft (114) First chance to see Jeff Minter's brand new 64 game — *Iridis Alfa*. Described by Jeff as a "sort of shoot 'em up but different — with two directional scrolling". Also look out for an early version of Amiga *Colour Space*, a Vic 20 compilation, and the Minter classic *Matrix*, for the C16.

Martech (140) Sam Fox fans might just catch a glimpse of the famous page 3 girl if Martech can persuade her to fit it into her hectic schedule. Whether or not she's there in the flesh *(ouch! Ed)* you will be able to see her game, *Strip Poker*, with digitised pics of Sam in varying stages of undress. For the non-dirty raincoat owning 64 owner their is also a preview of *Death Runners* — Martech's follow-up game to Sam Fox.

Micro Media (119) Complete range of floppy disks, ribbons, listing paper and labels, and diskette storage boxes.

Precision (81 & 82) — will be demonstrating their brand new word-processor for the 128. An up-graded version of the classic Super Script, it's regarded by many 64 owners as the ultimate WP. Are they going to be green with envy when they see the extra features of its big brother?

Preston Software (29) Some of those ridiculously priced books have been knocked down to around a couple of quid by Preston, along with bargains on The Quill and Illustrator, and the complete Mastertronic Range.

Micro Pro (76, 80, 83) will be demonstrating a new version of their famous Word Star word processor for the Commodore PC. Micro Pro will also have 64 and 128 versions of Super Script on their stand for sale.

Music Sales (8) will be demonstrating their brand new Complete Music System (reviewed this issue). Definitely the most interesting set of musical gizzmos for the 64 since Rainbird's Music System, and you get a five octave keyboard into the bargain.

Software Plus (150) Cut price games and add-ons.

Software International Distribution (103)— Special show offers from this leading distributor of games for Commodore owners.

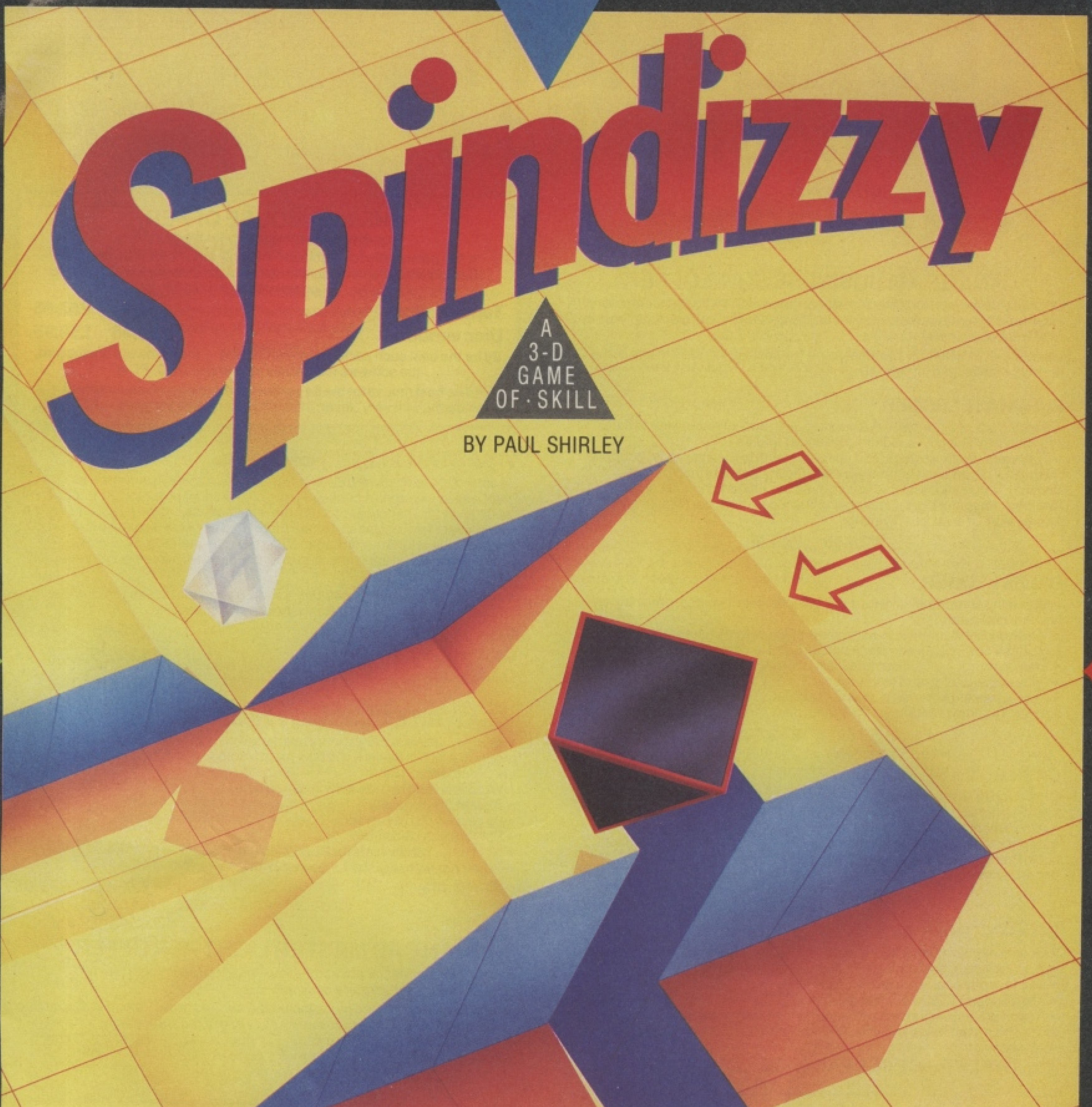
Vanguard Leisure (13)— A new joystick will be on display — plus special show offers on old and new games.

Viza Software (66) will be previewing two business packages — one for the Amiga and one for the 128 at the show. They have what they call a "High End" wordprocessor for Amiga and a 128 version of Viza Star — the integrated database, spreadsheet, and graphics package that has already been well received on the 64.

Timeworks (49 & 50) An American company showing off their range of software for the first time in the UK.

Trojan (31) will be demonstrating their lightpen and Cadmaster graphics package for the 64/128 (tested this issue). They also hope to preview the first C16 Plus/4 lightpen and graphics package.

Tynesoft (141-2) The Geordie software house will be showing their whole range of C16 titles which now offers no less than ten different games. Highlights will be the C16 version of *Jet Set Willy*, and the announcement of C16 and Plus/4 versions of seven Scott Adams adventures. □



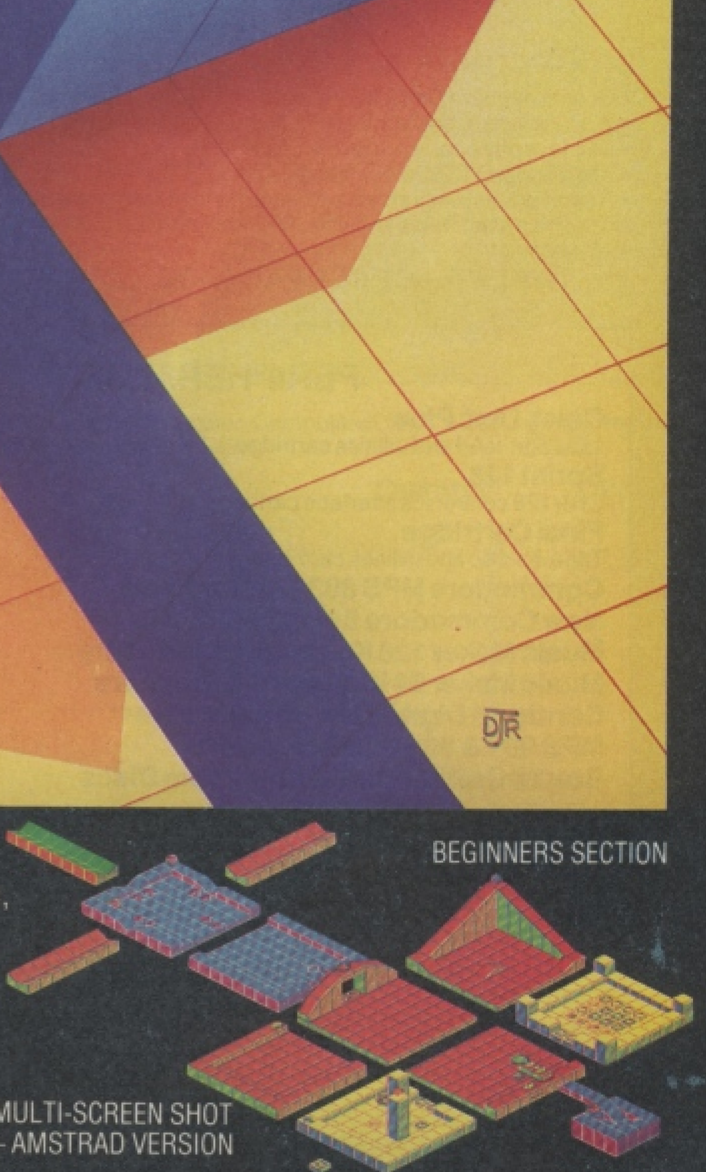
Electric Dreams SOFTWARE

Available on the 48K Spectrum, Amstrad and Commodore 64 from Electric Dreams Software, 31 Carlton Crescent, Southampton. Telephone: (0703) 229694.

"Spindizzy is quite simply one of THE most impressive games on ANY home micro" OVERALL 98% – *AMTIX*

"Spindizzy combines marvellous graphics, testing puzzles and a large area to make a stunningly original and challenging game" AA RATING 96% *AMSTRAD ACTION*

BEGINNERS SECTION



MULTI-SCREEN SHOT – AMSTRAD VERSION

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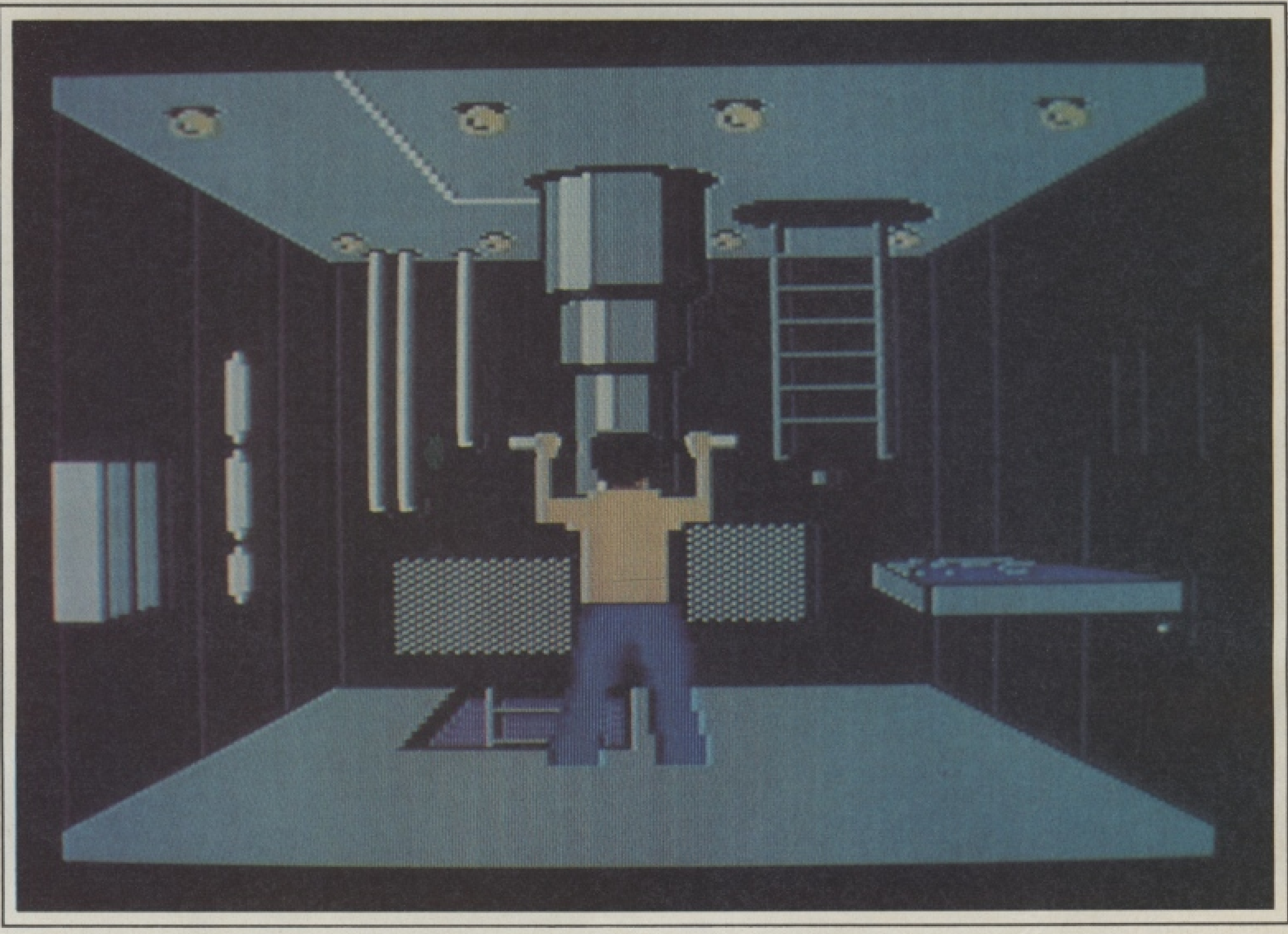
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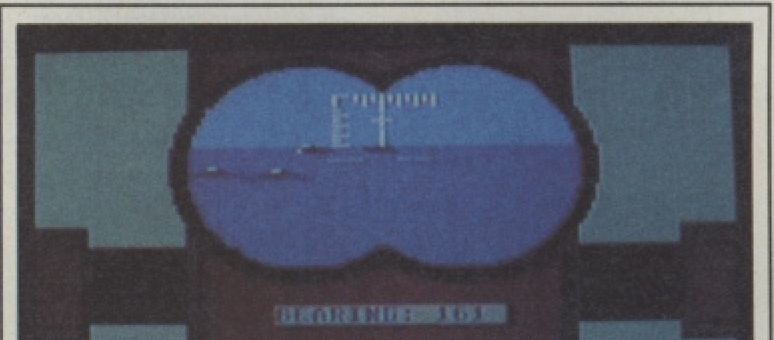
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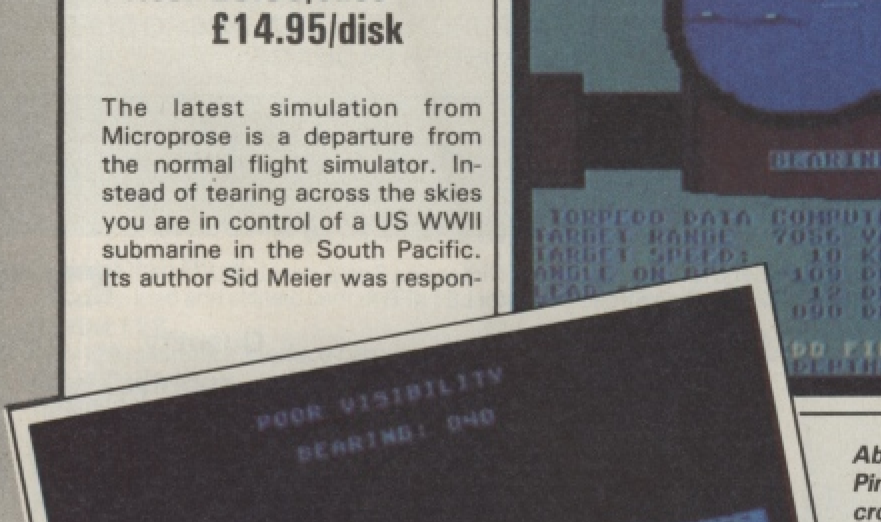


View of the control tower. The commander can be shifted to four other posts using the joystick.

SILENT SERVICE
Commodore 64/128
US/Gold/Microprose
Price: £9.95/cass
£14.95/disk

The latest simulation from Microprose is a departure from the normal flight simulator. Instead of tearing across the skies you are in control of a US WWII submarine in the South Pacific. Its author Sid Meier was responsible for the highly rated *F-15 Strike Eagle.*





Above: The periscope view. Pinpointing a ship with the cross hairs engages the Torpedo Data computer.
Left. Night view from the bridge.

Like all worthwhile simulations you'd better sit down with the manual for half an hour before you get stuck into the game or you won't know your angle or bow from your elbow.

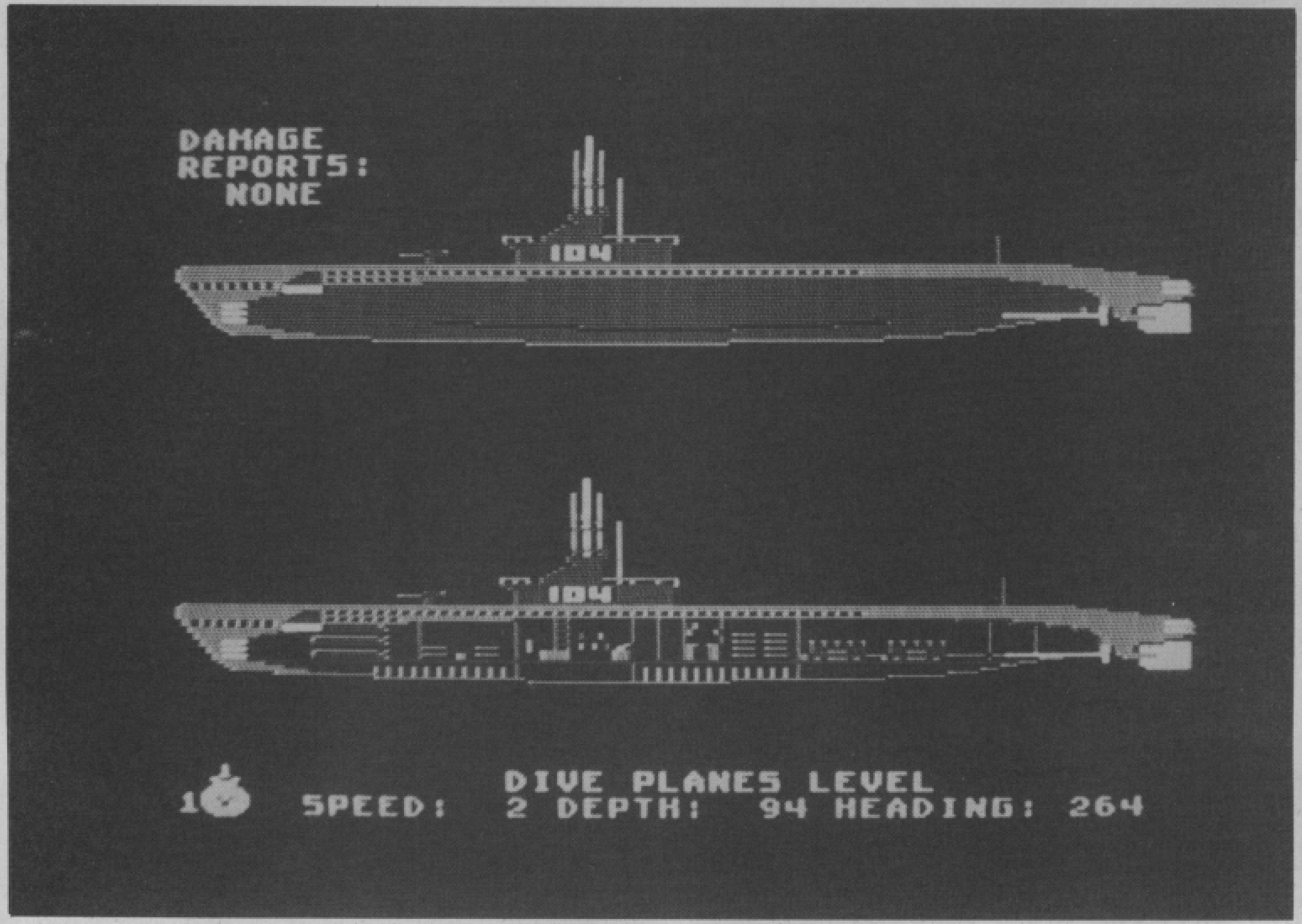
On loading you are offered the choice of three scenarios. You can plunge right in and taste immediate action with **Torpedo/Gunnery Practice** on a group of ships moored in a harbour, or **Convoy Action** which allows you to select action from several possible convoy attacks (surface/day, surface/night for example).

Map position.



Sooner or later you'll get bored with cutting corners and want to take on a full-scale War Patrol. The first obstacle to overcome is an identification test in which you have to pick out a certain type of Japanese boat using the manual. It's a bit of a pointless exercise and an irritant to getting stuck in.

Now choose the reality levels for the game. These are extra dif-



Damage Reports Screen monitors damage from depth charge and gunfire attacks. Repairs are automatically attempted by the crew.

ficulty factors which you can choose to incorporate into the game. They're all there to add to the credibility of the scenario, allowing you to include a certain number of dud torpedoes (a common problem), expert destroyer escorts, limited visibility or a zig-zagging convoy for example.

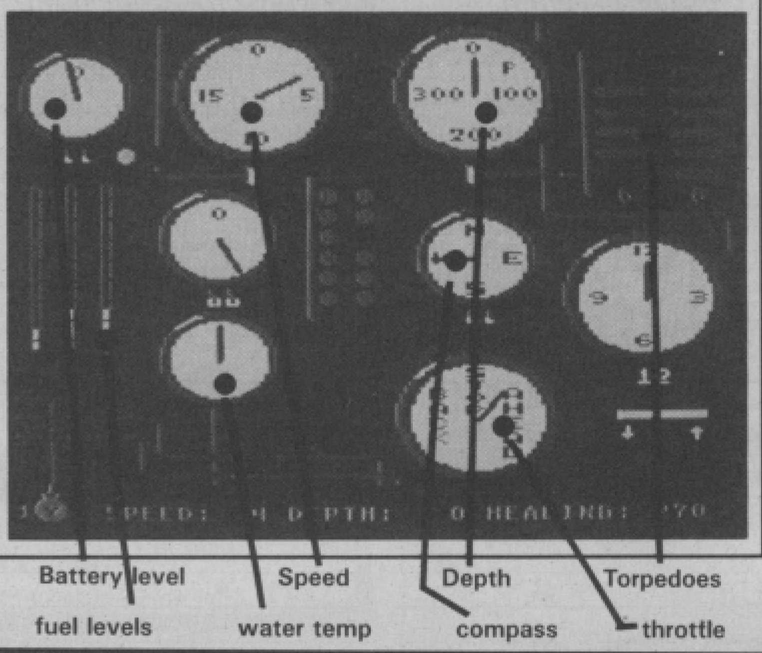
With your choice made you then have a mammoth pause while the game loads some more. Finally you're ready to ship out and sink some boats. A large map of the Pacific flashes up and you go through the rather tedious business of manoeuvring a little dot into a convoy zone. Finally when the screen turns red you get to the real nitty gritty.

The screen you see is that of the conning tower — inhabited by a bearded seaman with a pair of flared trousers. From here you can select the rest of the submarine's working screens. There's the bridge (only available when you're surfaced), periscope damage screen and instruments. You'll find it a lot easier just hitting the function keys to work your way round these.

Most of the interesting action is going to take place through the periscope. Beneath the binocular shaped view of the sea (and ships if you're lucky) you get the Torpedo Data Computer which gives you valuable information on target range, speed, angle, and course — all vital if you're going to sink anything.

This is where it starts getting complicated. So far it's been press a few keys and read carefully, now you've actually got to sink something and I don't mind telling you (as long as you don't spread it around) I struggled a bit here. I couldn't get to grips with all the angle on-bow stuff. It was all very well when the convoy steamed kindly straight past you like ducks, but when they started to turn away or behave at all ungentlemanly I floundered. I reckon a geometry qualification could well put you in good stead here.

Don't expect anything like those convoy patrol games that used to be around in the arcades long before space invaders arrived. In a way I found that a problem because the test of these simulations I feel is how big a kick you get from destroying the enemy. In the flight sims it's great to see the opposition go up in a puff of smoke. Here the graphics don't give you anything like that. The sound of a distant explosion and the disappearance of a ship off the horizon is about all you get — no flames, no smoke.



Graphically the game is neat and varied with all those different screens to switch through though I'm not sure why you get the instruments panel — all the data you need is displayed elsewhere. Sound is based around effects such as pings and a nice creaking noise when you travel too deep.

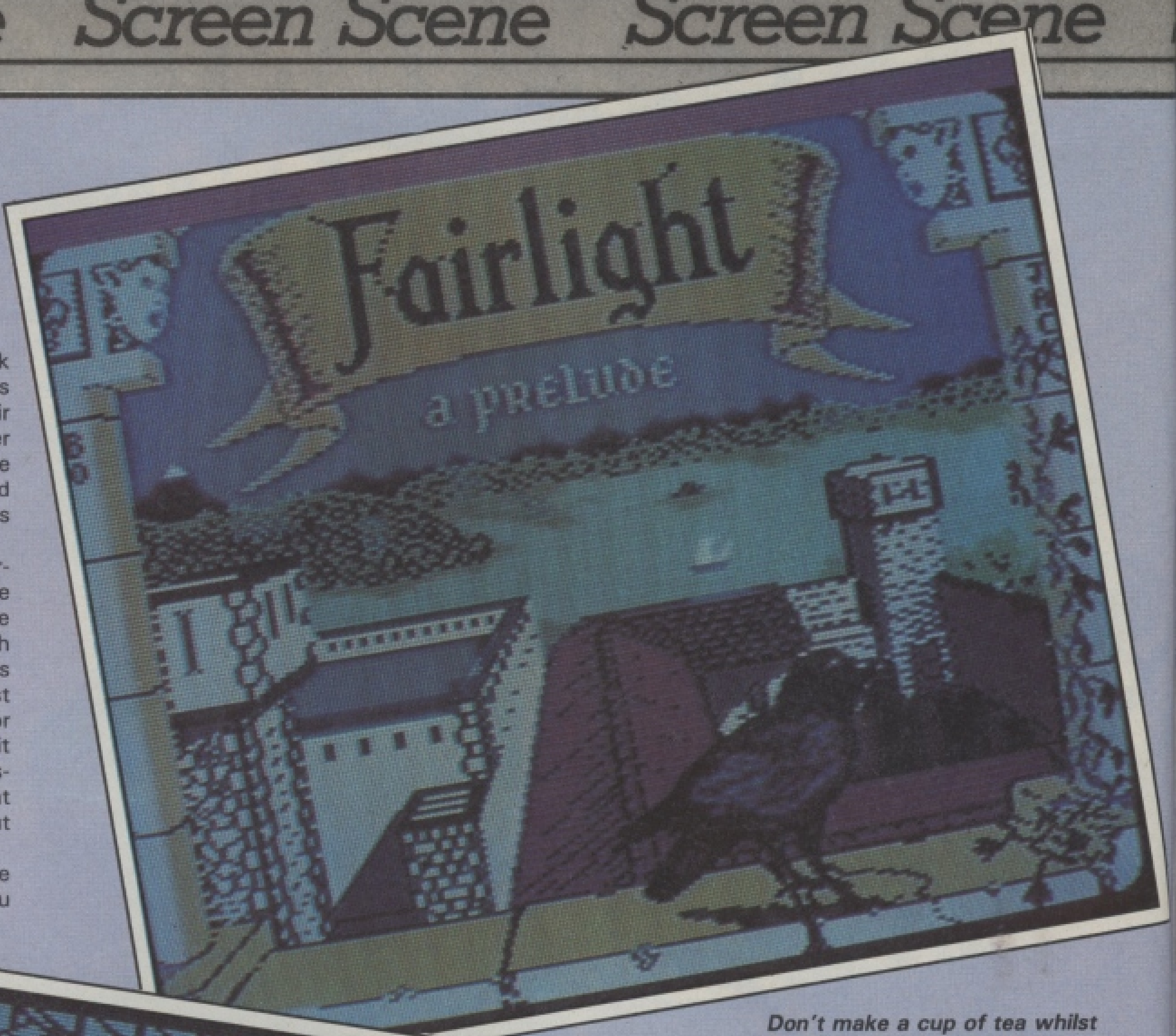
But I never felt like I wanted to play *Silent Service* until the early hours. This one's for diehard sim enthusiasts only.

Mike Pattenden

Graphics	★★★
Sound	★★★★
Toughness	★★★★★
Staying Power	★★★
Value	★★★


DO YOU WANT TO BE A HERO?
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FAIRLIGHT
Commodore 64/128
The Edge/Softek
Price: £12.95/disk
£9.95/cass



Don't make a cup of tea whilst the title screen is displayed — it contains vital clues.



Start here — in the main courtyard of the King's castle.

Having spent an intensive week last January tackling The Edge's 'Wizardry', I approached their latest offering, *Fairlight* (another 3-D aadvark) with a fair mixture of curiosity, enthusiasm and trepidation — would my eyes stand the strain?

The game is a direct conversion from the Spectrum, where the game enjoyed considerable success and attracted much praise for its stunning graphics and complex gamesplay. At first glance you would be forgiven for thinking you were still playing it on the Speccy, as it used a measly two colours and has that 'character graphics' look about it.

The somewhat elaborate instructions tell you the plot: you are an unsuspecting hero tricked into searching for the Book of Light in the King's castle to free a wizard trapped there and save the world (Ho, hum, not again — yawn). This scenario is reminiscent of any average arcade adventure. The game, however, is somewhat different.

The adventurer, Isvar, your cloaked hero, starts in one of the castle courtyards and must try to find the Book of Light as his first priority. You can simply wander round the place exploring for quite some time before you actually start doing anything important, as the castle is quite large and you are not given much to go on.

Playing the game, several intricate aspects appear; in movement — walking upstairs is properly animated, step by step or in large bounds if you choose to jump up them; in structure — the castle is properly architectured so that, for instance, a small corridor is put in under a walkway just to maintain structural continuity (when properly mapped, this helps in finding secret door locations).

Isvar may carry up to five objects at a time, although weight and bulk may limit this: five keys may be carried simultaneously, but only one barrel or two stools. The selection and re-location of objects is a major component of the game, as some more important articles are placed in less convenient positions — in one room a crown has been put on top of a tall arch (''how did THAT get there?'') and an elaborate stacking arrangement of stools plants and egg-timers (don't ask!) must be constructed and climbed before the offending item can be grabbed.

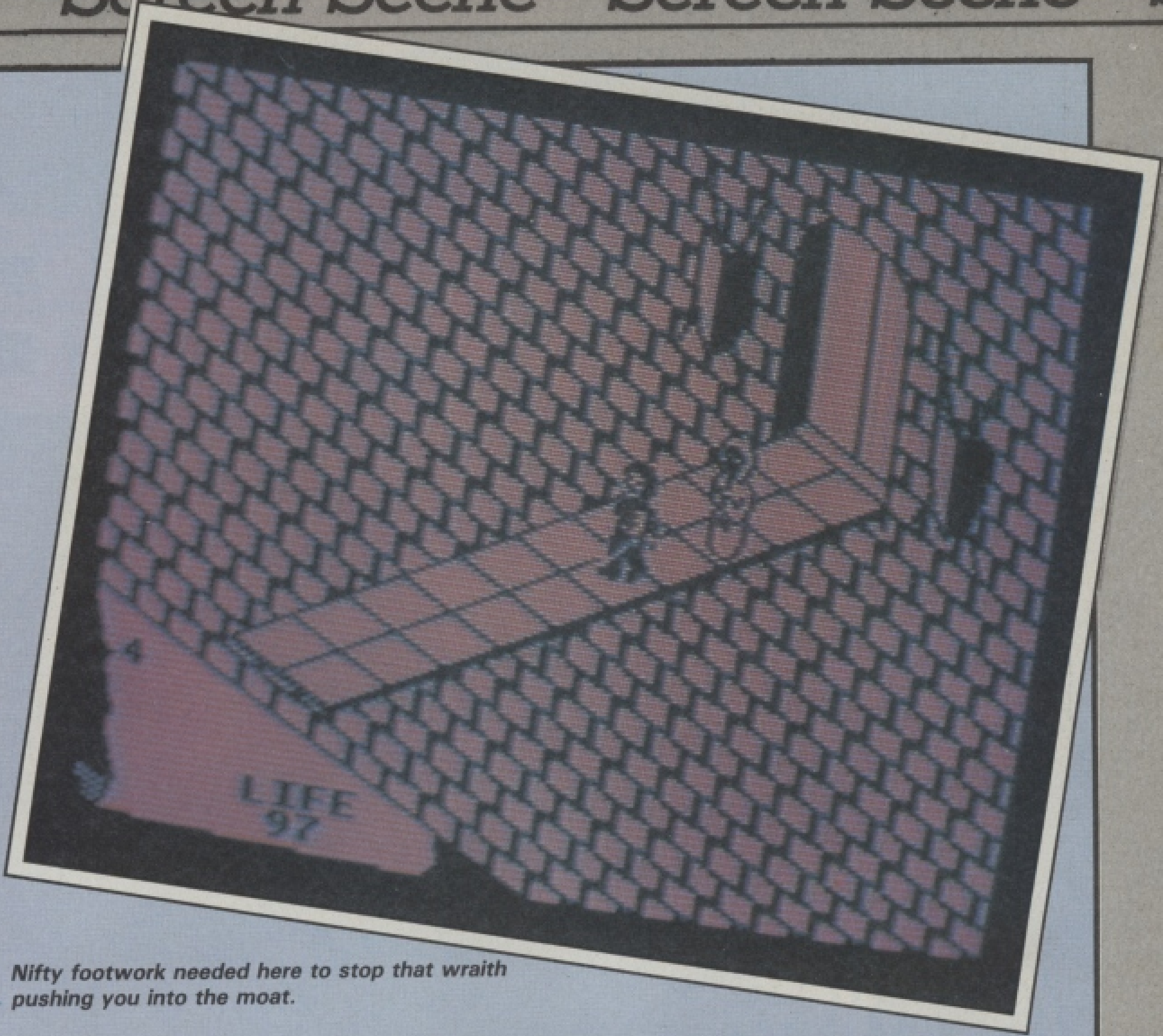
As you progress round the castle, you will have to fight your way out of one or two tight spots with your ''trusty ol' short sword''. Against guards and trolls this is fairly painless, but

you are ill-advised to tackle wraiths this way, as these nasties usually guard something pretty special and require abnormal methods of eradication ("wraithbusters"!)

There are a couple of interesting little quirks in combat: 1) when guards are killed they turn into small, portable blobs which may then be carried elsewhere, safely out of your way, as otherwise they reappear whenever you re-enter the room. 2) when Trolls (one up from guards) are killed, an object must be placed at the exact spot of their demise, to prevent a similar reappearance.

Unless these tactics are employed, continual re-killing of creatures becomes quite tiring — and deadly — as you have only a finite strength.

Mysterious objects occur from time to time, often in suitably inaccessible places. "Egg-timers", used for freezing enemies, are particularly valuable, as are potions, bread, decanters and chicken, which all replenish your strength in the traditional adventure manner. As for the Book of Light, well . . . that'd be telling.

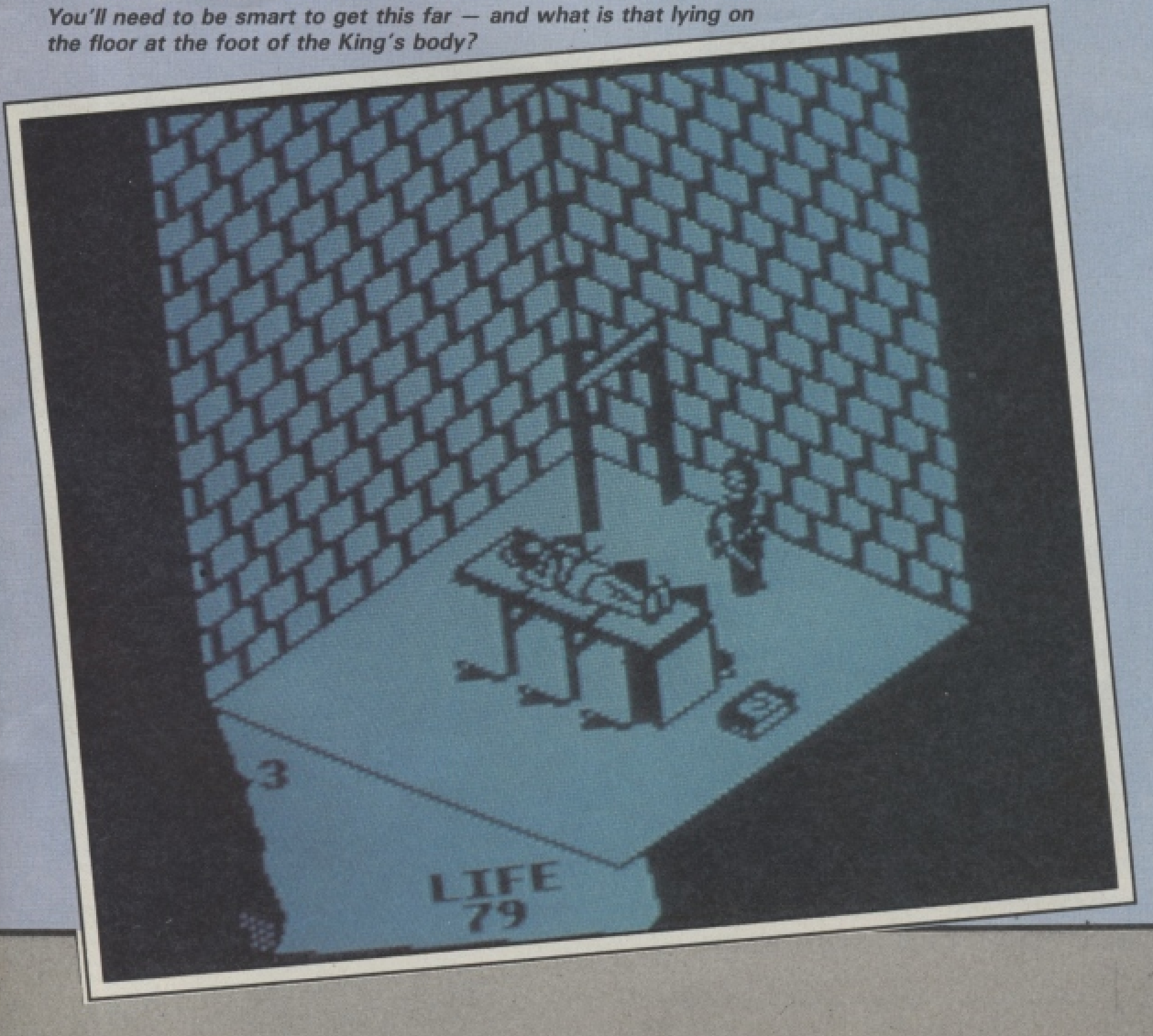


Nifty footwork needed here to stop that wraith pushing you into the moat.

The first thing you notice when you start playing is the meticulous detail involved. The graphics *are* incredible — unbelievably accurate in minute detail, if limited in colour. Heads carved on walls, suits of armour, furniture, scrolls, books, all designed to add realism to the game, and are beautifully drawn. There's not a glych in sight.

Unfortunately, the next thing you're likely to notice is the slightly awkward controls. The keyboard would have benefited from user-definement and, as a great deal of keyboard action is required in taking and using objects, joystick use in cooperation with keyboard is impractical unless two players join forces.

You'll need to be smart to get this far — and what is that lying on the floor at the foot of the King's body?



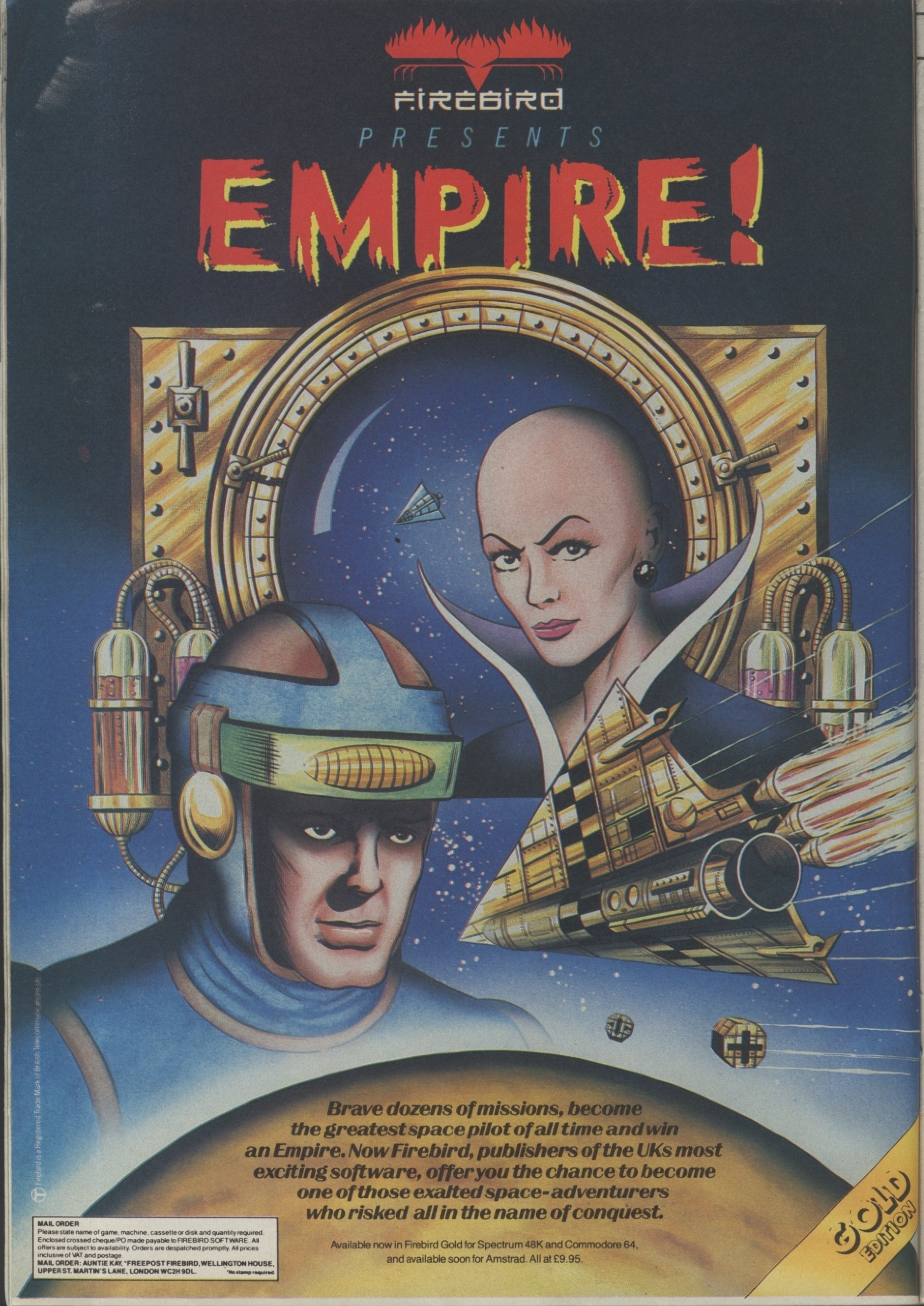
The sound is little more than average; "a jaunty little tune to keep your spirits up", (well, maybe not!) with an option of footsteps or silence if you prefer.

My last moan about the game (sorry, but someone has to say it!) is the speed, or lack of it. This isn't really the Edge's fault — as the game already had to cope with large quantities of excellent graphics, many moving elements and 'intelligent' monsters, it had to lose out somewhere — and that was in speed of operation. The game is fine until there are four or more moving things on screen — then it's swimming-through-treacle time.

For all its faults, Fairlight is still extremely playable. The adventurer is so absorbed in the action that the problems pass virtually unnoticed. I think you'll be busy trying to crack this one for some time yet — provided you don't cheat by asking your Spectrum-using friends for the answers.

Daniel Gilbert

Graphics	★★★★
Sound	★★★
Toughness	★★★★
Staying Power	★★★★★
Value	★★★★


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GOLD EDITION

CHEAPO OF THE MONTH

THRUST
Commodore 64/128
Firebird
Price: £1.99/cass

Remember the pure joy of floating? It was what made Asteroids one of the classic games of all time. It was a slow, easy feeling that your ship really was floating in deep space.

A slight tweek of the thrust button and you'd ease forward, keep your finger on thrust and you shoot forward even faster.

The really sad thing was that no other game successfully employed this fun technique.

Until now. Firebird's aptly titled *Thrust* uses this brilliant piece of game design to startling effect.

The aim of the game is to shoot out the pill boxes guarding each level, grab the fuel dump, pick up the fuel crystal, blow up the power station and then thrust off to the next level.

This description makes it all sound very simple — something that it definitely isn't. There are seven control keys (no joystick waggling here) to be mastered. Left and right spin, shields, crystal pick-up, fuel collection, fire, and thrust. Trying to do all of these things at the same time is mindbendingly difficult.

Sure, taking out the pill boxes isn't too tough but once you get that crystal it's like trying to run with a cannon ball chained to your leg.

To earn bonus points you have to destroy the power station before thrusting off to the next level.

With the crystal dragging you down and spinning you around in the gravitational style it will take considerable skill to get yourself into a good enough position to straffe the power generator.

Once it starts to flash you know it is going to blow so it's scarper time.

On level one the crystal is left nice and conveniently for you in a wide open space at a safe distance from the pill box.

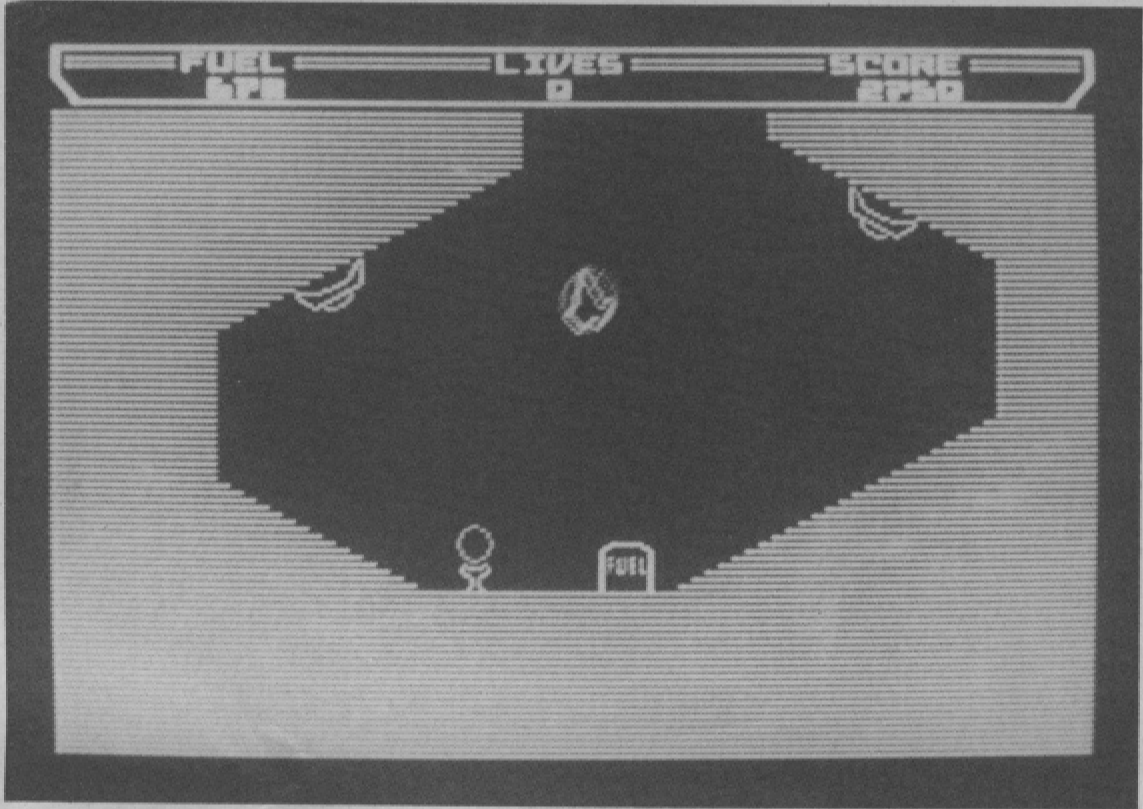
Things soon get tougher with level two as the crystal is at the bottom of a cave with two pill boxes posted either side of the cave entrance.

Seven levels may not sound like very many but once you have spent an hour on the first screen you will begin to realise that it is no push over.

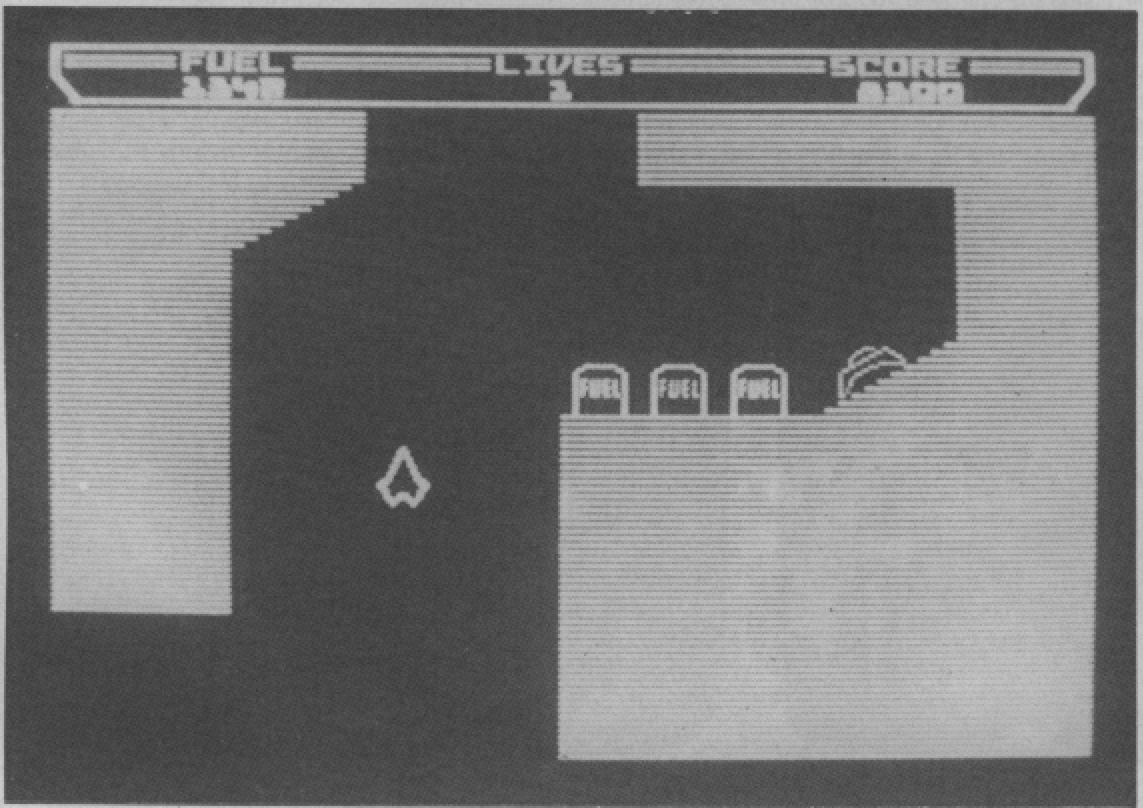
Graphics-wise *Thrust* will not strike you as state-of-the-art but the line work is neat and it does have the most extraordinary addictive qualities.

In terms of lunchtime and after work popularity *Thrust* is out shining all of the Gold Range games at Firebird's HQ. I am not one bit surprised — for a budget game it really is a £2 sensation.

Eugene Lacey



Above: On level two, the pill boxes on either side of the entrance fire at you. Note the crystal to the left of the fuel.
Below: Level four gives you extra fuel but a much trickier cave.



Graphics	★★★
Sound	★★★
Toughness	★★★★
Staying Power	★★★★★
Value	★★★★★

EMPIRE
Commodore 64/128
Firebird
Price: £14.95/disk £9.95/cass

Empire, Firebird's latest release has been heralded (by Firebird) as a cure for bored Elitists. The game offers an unusual combination of space exploration and trading strategy, blended with just enough shoot 'em-up to make things difficult.

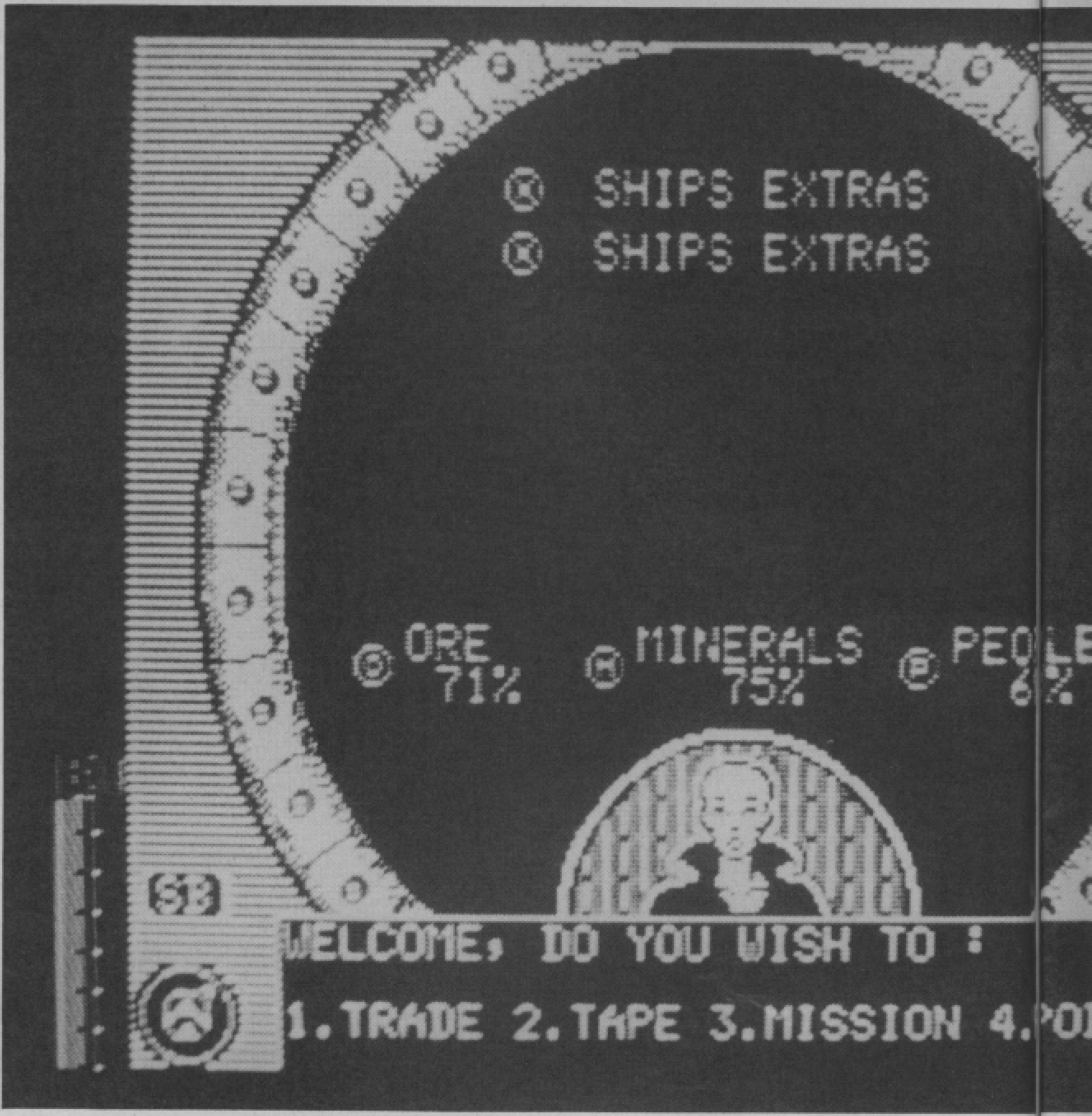
For the most part your view of the game is via a porthold centre-screen, with all the ships, instruments arranged around the outside, through the porthole, you can see your ship portrayed in two dimensions. Joystick controls offer forward propulsion, reverse thrust (for slowing down), left/right heading and the fire-button activates your weaponry.

Navigation:
The Galaxy consists of about 60 systems, each solar system contains one or more planets with a space-station in orbit around one, a number of alien craft, and a sun.

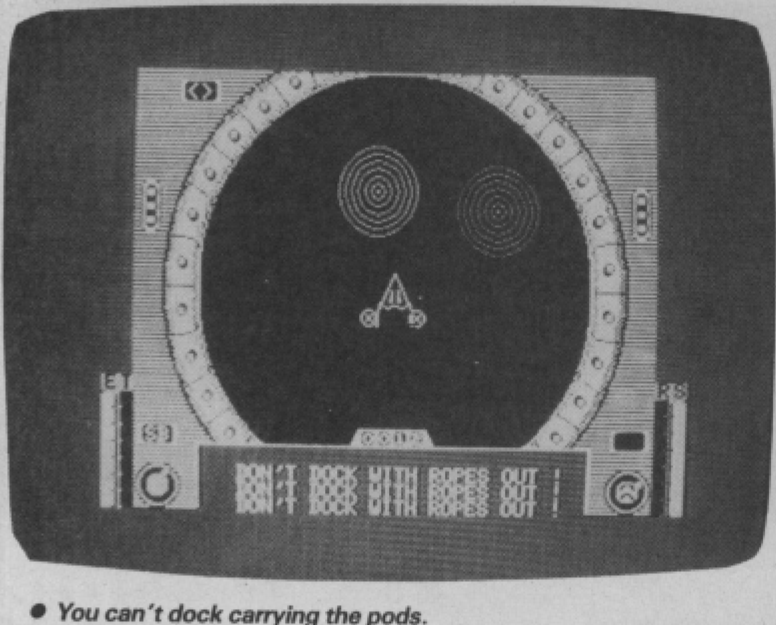
While in space, pressing 'G' will halt the game and summon up the galatic chart. Each system is shown as a dot, whilst the system you are in at the time flashes. Use the joystick to place the cursor over any system and its vital statistics appear to the left of the charts telling you have visitied it yet, the number of planets, Alien or Empire controlled and its population and production statistics.

Pressing 'T' will get the chart of your current system. This chart shows the relative positions and orbits of each planet, the starbase, and other objects of interest. Placing the cursor anywhere on the chart activates the ship's directional indicators enabling you to fly to any part of the system very accurately.

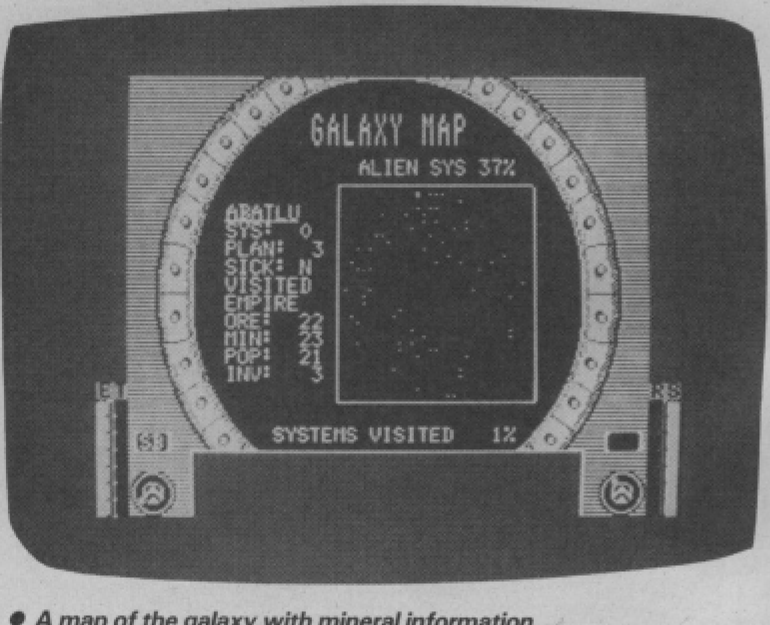
Finding your way to a starbase couldn't be easier, no groping around here. The left-hand direction indicator toggles between pointing to the starbase and pointing to the cursor's position on the chart. Simply rotate your ship until the arrow above the indicator points straight up and



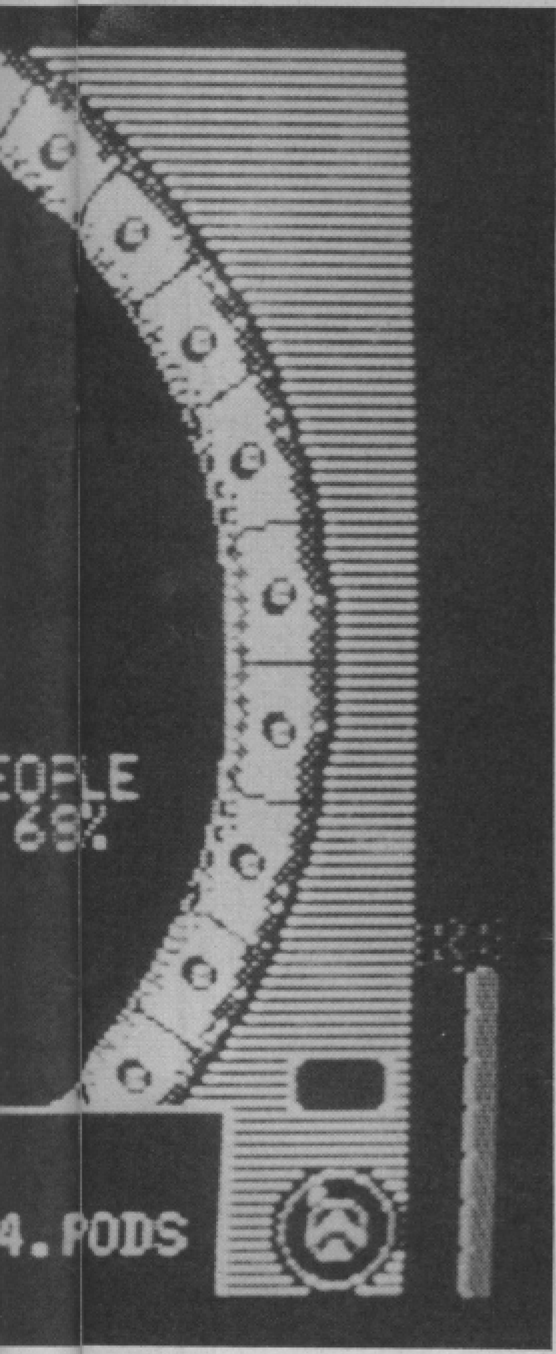
● *Inside the starbase you'll be offered four options.*

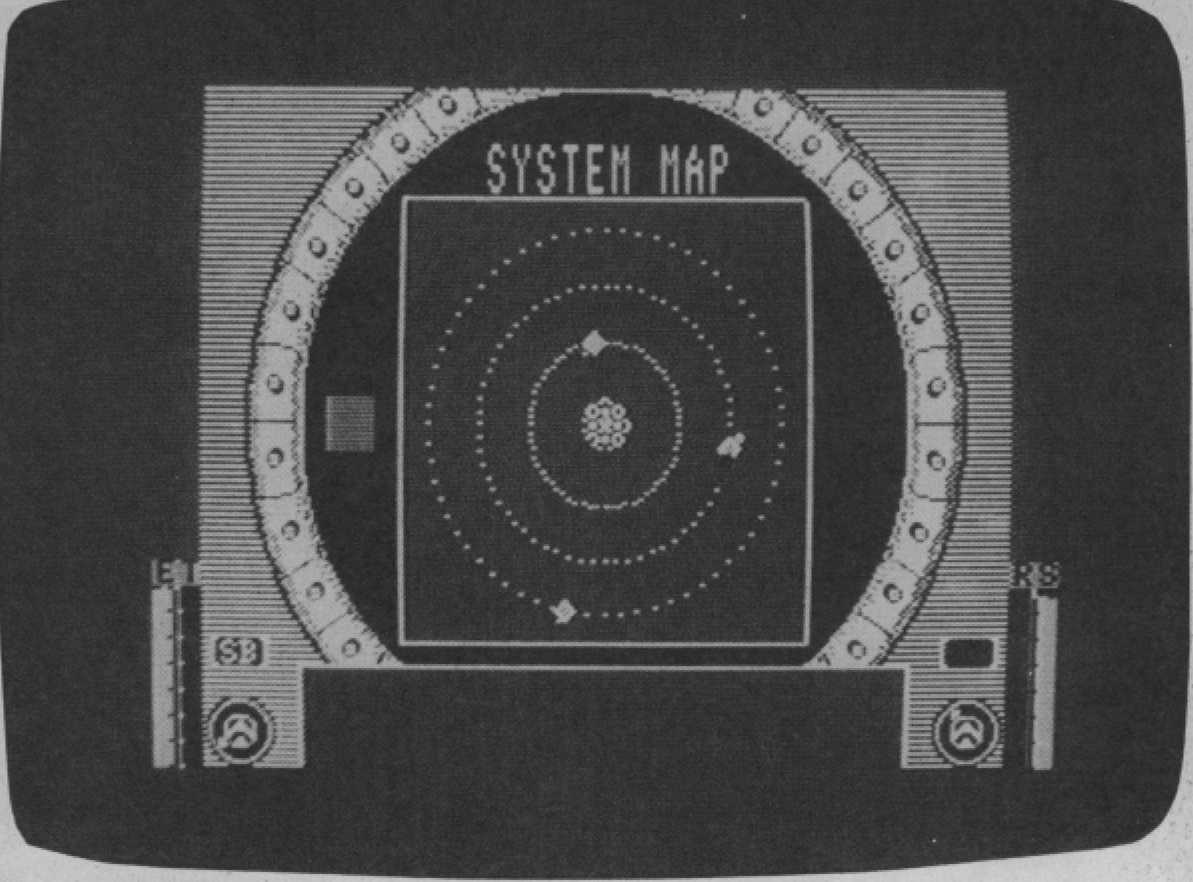


● *You can't dock carrying the pods.*



● *A map of the galaxy with mineral information.*





● *Map showing the system you are currently in.*

you are pointing in the right direction. Various objects might get in the way like planets (which you simply bounce off!) and the sun (flying to close can cost you the game), but after a small detour you can easily find your course again.

Flying between systems is a little more difficult. Flying off the edge of your current system will eventually get you to another system. You'll have to avoid a great many asteroids on the way, but you are guided by the right-hand direction indicator which points unneringly towards the new system. In case you change your mind, the left-hand indicator will guide you back to the old system.

Space Exploration.
Starbases are always shown as a pair of coloured circles. To dock, you must fly between them, and turn to face one of them. A fair amount of precision is needed here, or you won't be admitted.

Once inside, you can trade, accept missions, select ship's extras and save the game so far to tape for future loading (a sensible precaution)!

Missions:
During the course of the game, you will receive radio messages from space stations across the galaxy. Successfully completing these missions will help you equip your ship with the latest extras. There is usually a time limit on these missions, so you will have to report to the appropriate starbase pronto or the offer might be withdrawn.

Trading.
You don't trade in the traditional sense as no money changes hands. The starbase needs certain materials to produce the 'ships extras' that you need, the necessary materials are produced on the planets. Collect the cargo pods from the planet surface, and deliver them to the starbase, and pods containing various items will be made available to you. A simple reward system exists here.

The planet surface.
Descending to the planet surface involves flying an orbit corridor. The entrance to this corridor is shown on the system chart as a small white dot close to the planet, while in space, it appears as a white square.

On entering the corridor, your screen changes to a forward view along the corridor. Keep your ship in the centre to avoid damage — this part of the game is reminiscent of Activision's *Master of the Lamps*.

At the end of the corridor, you are placed on a featureless planet surface, predominately orange in colour. At first, you will have to negotiate a forest of telegraph pole-like trees. Hitting a tree reduces your shield strength slightly. Once out of the forest you will be ceaslessly bombarded with oddly shaped missiles. You can either avoid or attempt to shoot them, but if they hit you, your shield strength is significantly reduced. Your left-hand direction indicator points to the nearest cargo pod or exit window, shown as white and green pyramids respectively.

Keep the pyramid dead centre as you approach it and you will collect the pod or be shot back into space again! Once you are back in space, the pods will be placed near the corridor entrance, and you will have to pick them up.

The pods now appear as small white circles and to pick them up you will have to extend your cargo ropes. Each rope apparently has a small sticky blob on the end (revolutionary technology here) and you need to manoeuvre your craft so as to catch the pod on the end of the rope. Not as difficult as it sounds!

You cannot approach a starbase with your cargo ropes out, so you must withdraw the ropes before the starbase can draw the pods inside. Some pods contain radioactive ore, and carrying to many for to long has an understandable ill-effect on the sticky blobs.

Aliens.
Alien spacecraft appear as small, blue versions of your own craft, and can be destroyed with a well-place cannon shot. All the systems in the galaxy have some aliens, some more than others. At best, they represent a nuisance, at worst, a formidable challenge, and destroying enough alien ships in an alien galaxy can win it back for the Empire.

In the main, *Empire* is as infuriating as it is engrossing. Your performance at the end of a game is expressed as a percentage, but no real overall task is specified. The main screen layout is a trifle primitive, the sound was nothing more than squeks and wooshes, but I particularly like the 'water guages'.

The game lacks any kind of realism (who ever heard of two-dimentional space?), and some of the missions are a teeny bit far-fetched. If Firebird expect to tout this around as a sequel to *Elite* they'd better drop the whole idea right now, and while they're at it they could do the same with the price. **Fred Reid**

Graphics	★★
Sound	★
Toughness	★★★
Staying Power	★★★
Value	★

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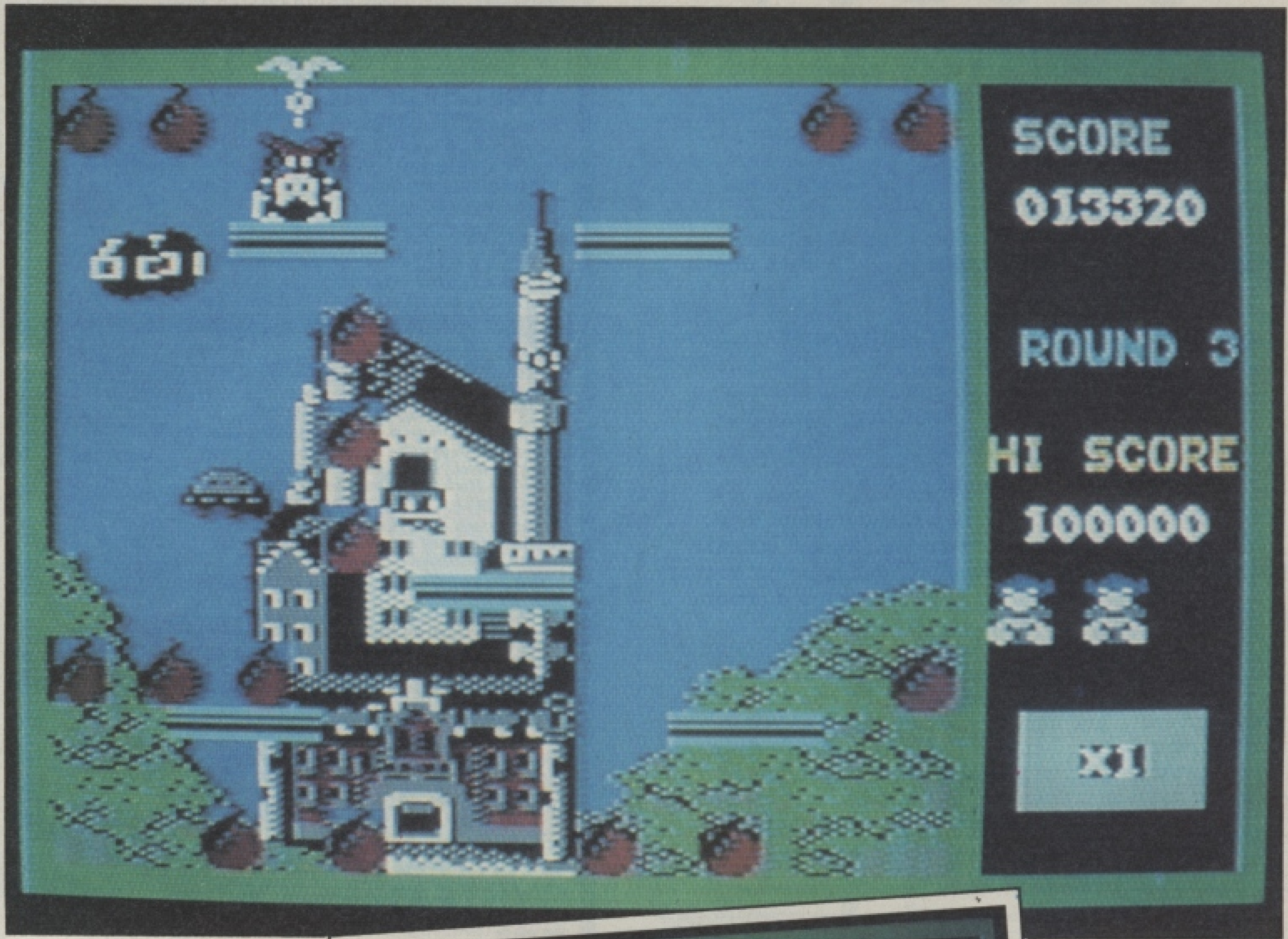
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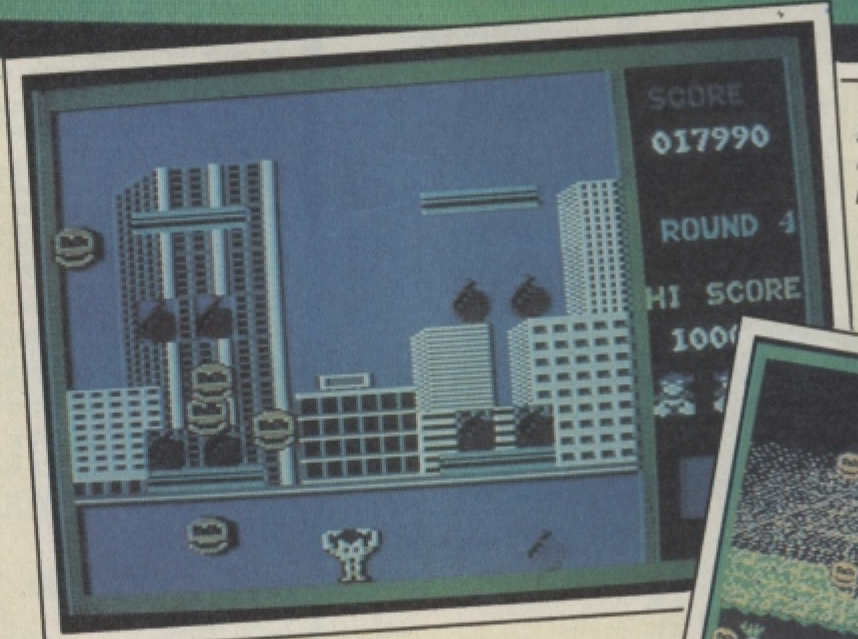
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Top: This is the disneyland screen — Jack has come unstuck on the top platform.

Left: New York and Jack has got the power coin which turns all the nasties into bonus pumpkins.



Above right: Jack is onto the fifth screen — a field overlooking a city at night.

BOMBJACK
Commodore 64/128
Elite
Price: £9.95/cass.

The first of Elite's trio of arcade-licensed games for '86 has arrived with their conversion of Tehkan's platform challenger *Bombjack*.

Where I normally find the standard platform fare about as interesting as waiting for a nightbus, *Bombjack* provides incentive to keep on playing. Each screen is short — by which I mean it can be quickly completed. And that's not suggesting it's easy. It's harder than the coin op version.

If you haven't played the game before let me set the scene. Jack is a sort of super Mickey Mouse. Complete with cape and natty little red suit he flits around five different screens collecting piles of bombs left lying casually around. Each screen is progressively more difficult to crack and there are four levels worth. Each time you progress a level the platform set up has changed slightly and the nasties are faster.

Jack is helped in his task by three coins. **E** gives him an extra life, **B** a bonus and **P** freezes the nasties. That's all the help he gets — there's only one of each per screen. The rest is down to your stick control.

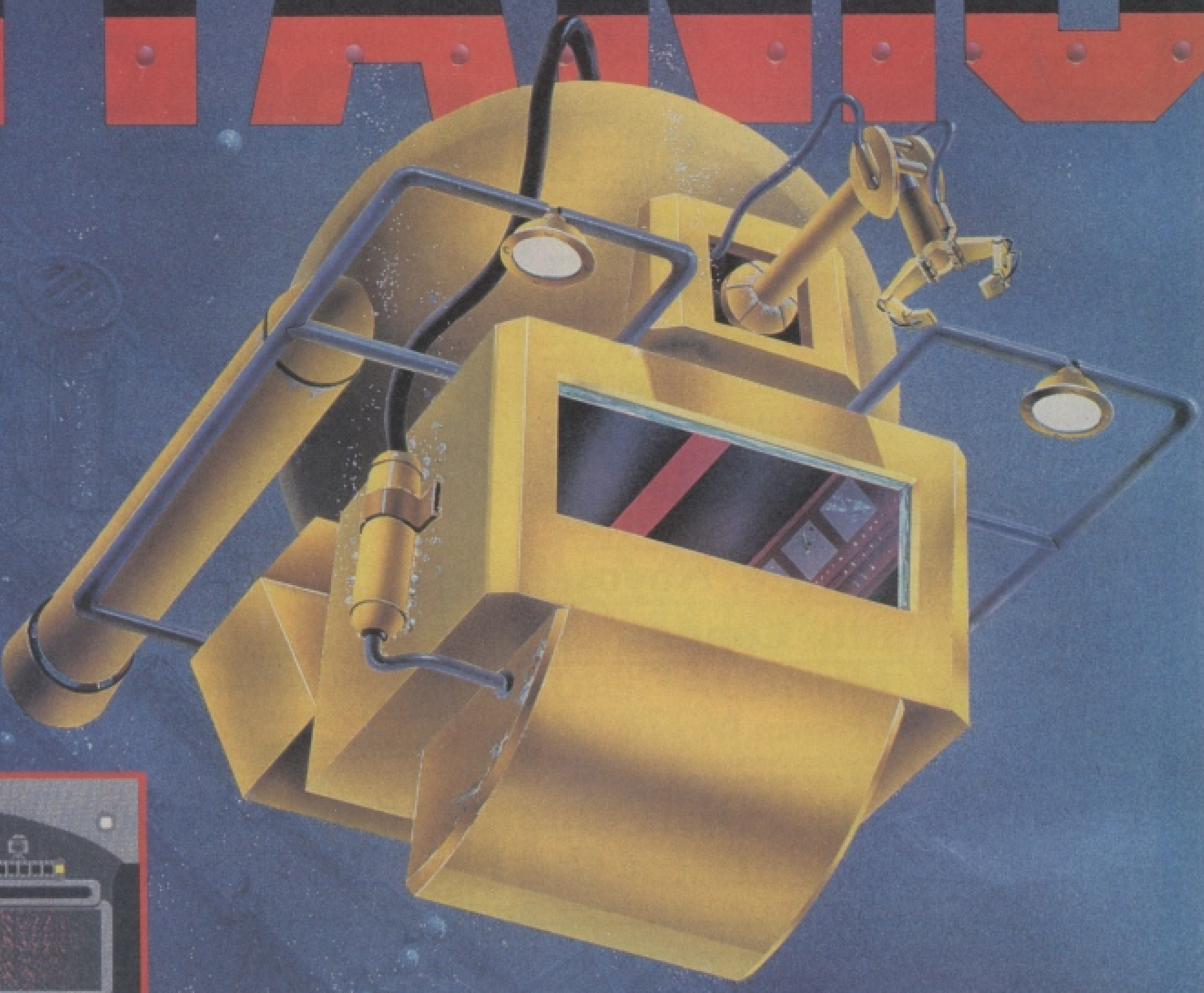
Jack flies when you press up and hit the fire button, but you'll need to master the hovering technique if you're going to crack this game and get anything like decent scores. *Bombjack* you see, works on a bonus system (who doesn't) if he collects the bombs in the order they flash he gets a firebomb bonus. Not easy I can tell you.

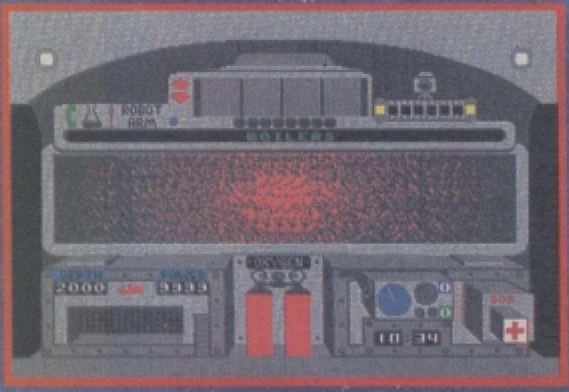
Graphically this looks just like the original but I do have a slight moan. Some of the colours clash. So at crucial times you're left squinting to find the odd bomb. The backgrounds are nice and colourful but the indistinction could cause problems. The tune's not exactly endearing but it lends itself well to the pace of the game.

I must admit I didn't expect to find myself glued to *Bombjack* over the bank holiday but it did the trick. If Elite rate this as the weakest of their three releases then I'm certainly looking forward to the rest.

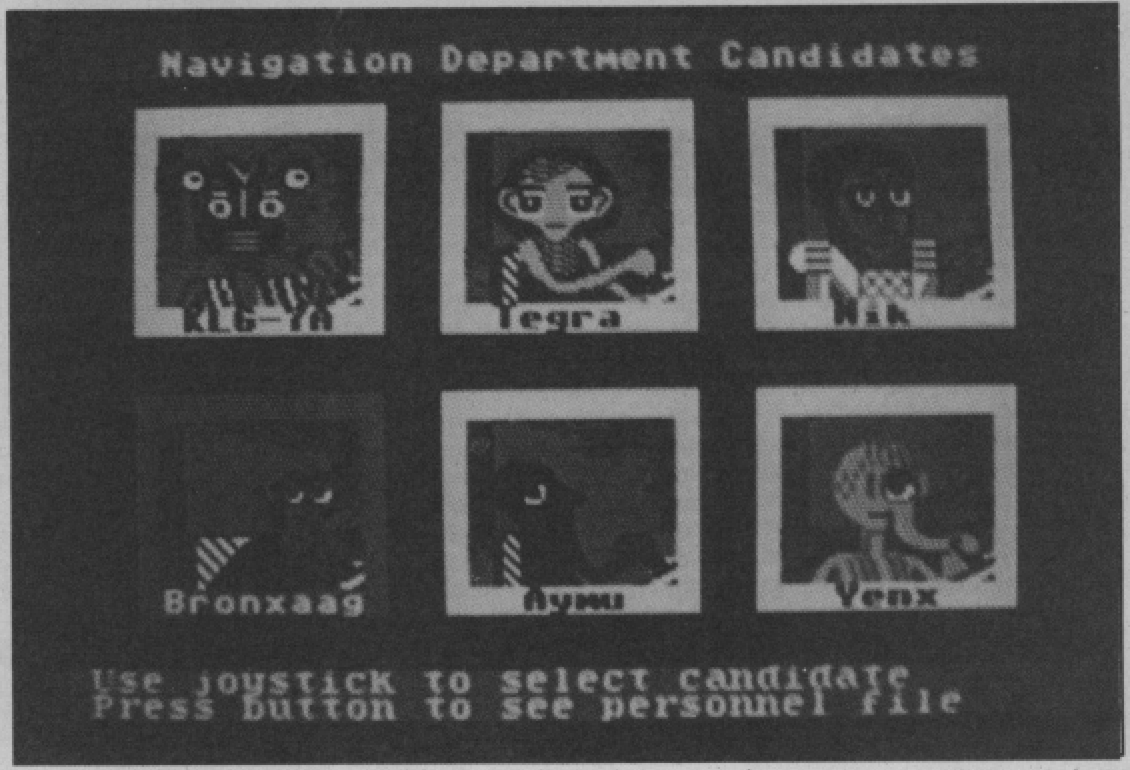
Mike Pattenden

Graphics	★★★★
Sound	★★★
Toughness	★★★★
Staying Power	★★★★
Value	★★★★





Psi5 TRADING CO.
Commodore 64/128
Accolade
Price: £9.95/cass £14.95/disk



Broxxnagg has been selected as a crew member.

The local inhabitants of the recently colonised Parvian Frontier have a problem. Their quadrant of the galaxy is plagued by pirates out to make a quick buck by looting the freighters which regularly visit the sector.

This is good news for the Psi5 Trading Company and for you as captain of one of it's ships. The lack of supplies has forced the Parvians out of desperation to pay almost anything for supplies. Your job is to deliver the cargo on time and in one piece, but a difficult time lies ahead.

As captain you don't actually perform any of the menial tasks like navigation, repairs and weaponry. Instead, the crew members do it for you. My initial reaction to this was one of utter amazement. If anyone's going to do the shooting around here it's going to be me I thought. But you soon get used to having someone do it for you. What you have to understand is that it's the other people on the ship that have the fun, you are in command.

Your first job as commander is to handpick the band of dedicated men and women that are about to follow you — probably to their death! There are five vacancies to be filled, weapons, scanning, navigation, engineering, and repairs. You get to choose between six candidates for each post. Full details of a candidate's qualifications, strengths and weaknesses are provided in an on-screen report complete with photo paperclipped to the top corner.

Not all the hopefuls are humanoid, some are pretty strange looking creatures and some are droids. Take Boris. Boris is a 47 year old Jargonian, an expert on the GX75 laser cannon and pretty good with sonic missiles not to mention the M26 battle thermos. The basic idea is to pick a crew that will work together as a team.

Once you have assembled a crew, it's off into the farthest depths of space. Your captain's console consists of a view screen on the left, communications screen on the right, on which the crew members appear, other ship's instrumentation below and, at the bottom, a window used for status reports.

Commands are issued to the crew by means of a menu used in combination with the joystick. So to set the ship in motion you select Nav, then acc, then choose the speed. When several commands need to be issued they are each allocated a priority. For example when you come under attack the enemy ships must be scanned and locked onto before you can give the command to attack them. If you are being attacked by more than one party you must decide which one you want the crew to pay most attention to.

Similarly, no skirmish is likely to take place without a little damage being done to your own ship. You must order the repairs department to allocate droids to each section of the ship to carry out the necessary maintenance.

Sometimes excruciating decisions must be made as to whether to give priority to a crewmember's life support system or your fading shields.

During one game I succeeded in killing off the navigator pretty early on by ignoring his pleas for a repaired life support system. Although R.I.P. was displayed on his screen he continued to send me prerecorded messages about the ship's status. That's what I call loyalty.

The graphics are really excellent. Although there's nothing stunningly clever about them, what there is has been done well and works nicely within the format of the game. Whenever you communicate with one of the crew they appear on the screen fully animated. Mouths, arms, eyes, hair and even tendrils move as do some of the background features.

Ken McMahon



The navigator scanning the galaxy. Take a tip from me — look out for this member of your crew.

Graphics	★★★★★
Sound	★★★★
Toughness	★★★★
Staying Power	★★★★★
Value	★★★★

ARK PANDORA
Commodore 64/128
Rino Marketing
Price: £6.95/disk

The icon craze marches on as Alligata's latest offering uses the little picture symbols to implement commands in their island adventure tale.

You play the part of a pirate who has been released from the island prison by the natives to help them defeat the evil High Priest — the tyrant keeping them enslaved.

Luckily, those years in a tiny cell did not prevent you from keeping fit. Which was fortunate because you will need all your acrobatic ability and skill throwing and catching to complete your quest.

In true arcade adventure style the game is divided up into a number of sub-plots. You have to find objects to enable you to perform certain tasks. For example the crucifix is required to kill the priest, the net to catch the ferret, the ferret, to find the key, a witch's amulet to trade for the eagle. You get the idea — so I won't give away any more secrets.

The High Priest has a heavy gang of soldiers, guards, trackers, bandits, and mercenaries in his employ and even a warlock in a certain location.

The icons come into it to enable you to pick up and use the items you need as you explore.

The nice thing about Ark Pandora is that it is not just you against all the nasties.

There are also allies that you can enlist to help in your quest.

The condemned man at the gallows, the fisherman, hermit, witch, and prisoner in the dungeon will help you in some way — usually by giving you something to achieve a task.

Weapons-wise you are armed with discs and studded balls which you an can lob at the nasties.

Your acrobatic ability has already been noted — it's most useful aspect is the pirate somersault, despite its rather clumsy animation.

The game has no less than ninety-four locations — with fairly impressive graphics in most cases.

One of the main faults of arcade adventures is that they tend to be pretty worthless once you have cracked them. Ark Pandora avoids this obsolescence with a neat trick — a Screen Designer.

This enables you to move the scenery around a little bit. It's pretty time-consuming, and doesn't appear to alter the gameplay very drastically. It's a pity that it wasn't more sophisticated — it could have given *Ark Pandora* a real advantage over dozens of arcade adventures that have preceded it.

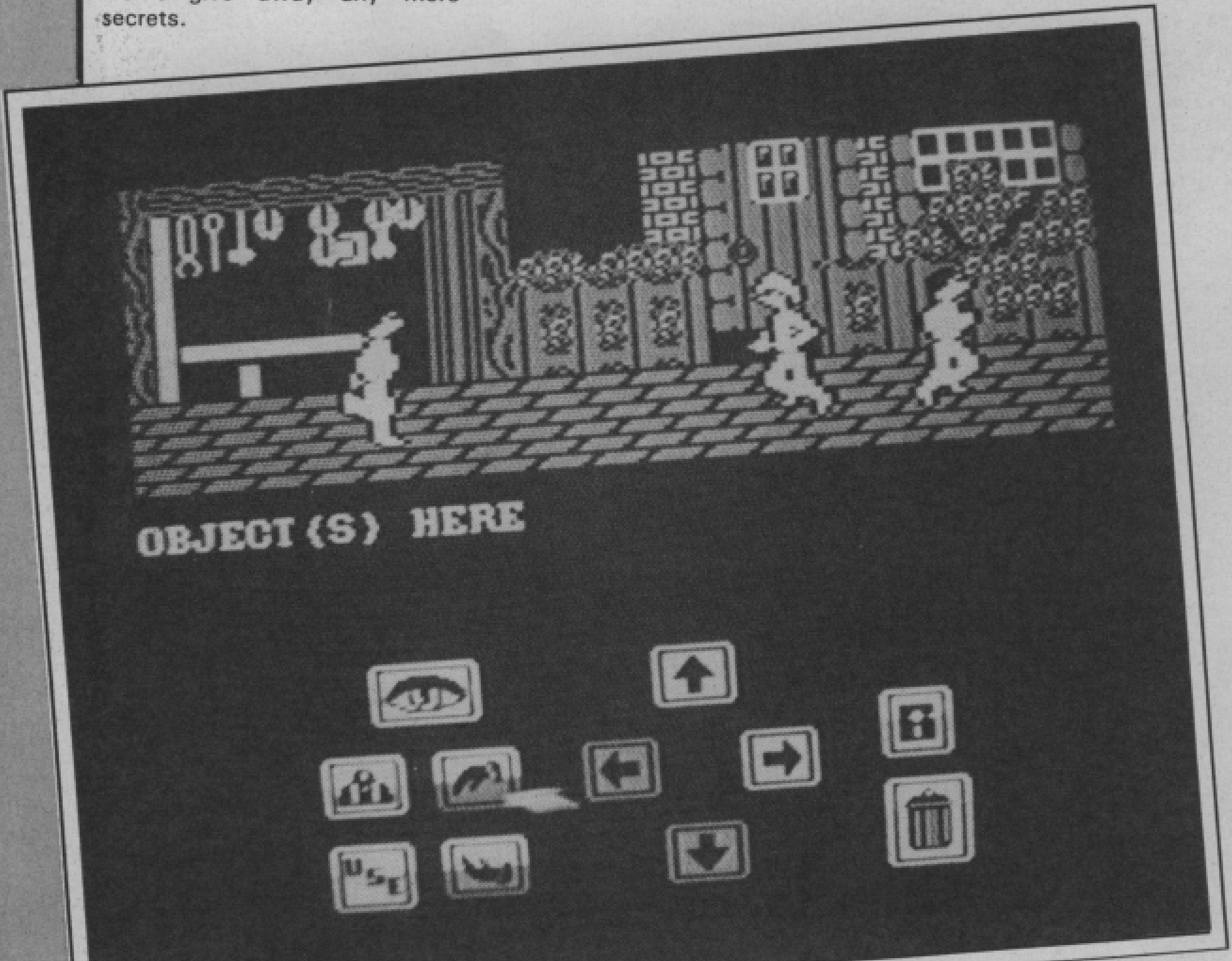
Again on the plus side you can save old games and take up from where you left off — such a useful feature in tough games of this type.

Musically the game has two excellent original pieces on it. Not quite in the Galway/Hubbard class — but still very good.

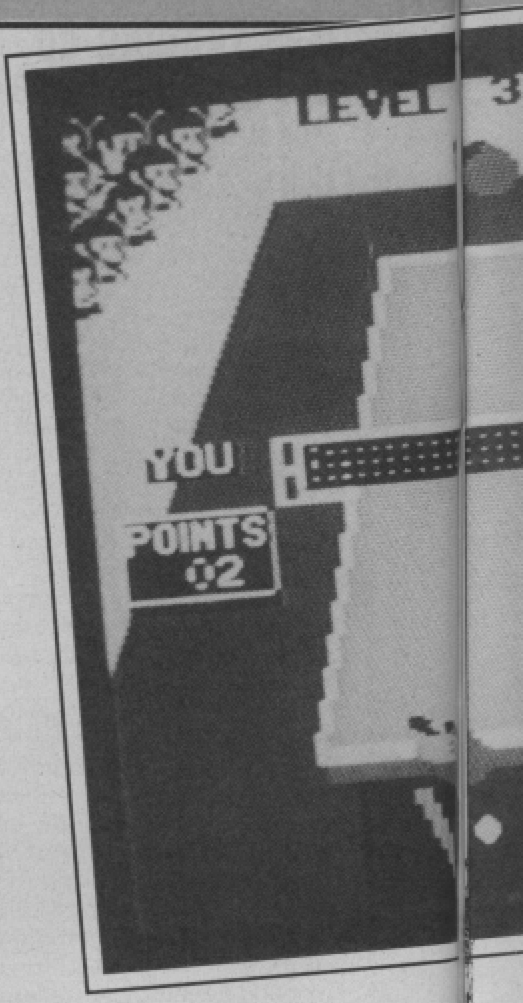
This is a well planned and satisfying game to play with good quality sound and graphics.

Richard Bradbury

Graphics	★★★★
Sound	★★★★
Toughness	★★★
Staying Power	★★★
Value	★★★



Icons and arcade action combined in Ark Pandora.



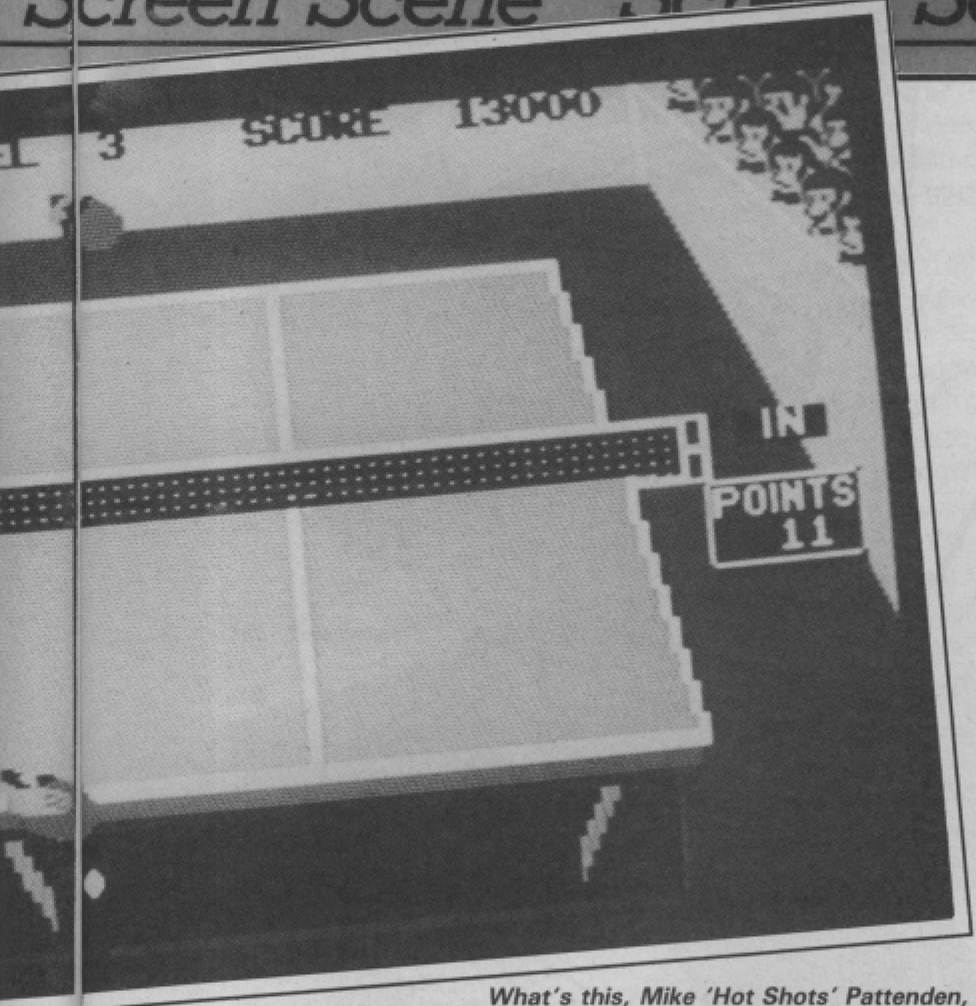
PING PONG
Commodore 64/128
Ocean
Price: £8.95/disk

This is yet another release from Imagine/Konami range which seems to pump out a game a month currently. Though not viewed as a biggie it doesn't deserved to be overshadowed by its more illustrious stablemates like *Green Beret* and *Hyper Sports*.

To begin with it's one of those load and play games which don't entail you sitting down with a dictionary and magnifying glass to decipher a lot of ridiculous scene setting and instructions. *Ping Pong* loads quickly and as soon as it's up and running you can get stuck in.

Controls are simple and the game can be quickly learnt. Learnt, note, not mastered. The computer turns into a Desmond Douglas (you try and think of another table tennis player) and starts swiping balls all over the shop.

It took me nearly an hour to beat the thing on level one. No soon had I started dancing round the room than I was plunged onto the next level and rapidly trounced eleven nil. A quick play at the fourth level and I was stabbing the joystick button continually in a blur of action. Nevertheless once you learn to adjust



What's this, Mike 'Hot Shots' Pattenden, 11.2 down on level 3. If only he could force his opponent into a lob he could then follow through with a deadly smash.

for the change in speed at each level *Ping Pong* isn't unbeatable, though level five still eludes me.

Little has changed from the arcade original. On loading you are presented with a typical Ocean scoring table and Martin Galway music. A quick choice of level and your're straight into the action.

Graphically it's very nice if somewhat sparse. Two hands hold bats which shift from forehand to backhand and strike the ball very stylishly. It's the movement of the ball and the shadowing which really make this game so thoroughly enjoyable to play, though.

The gameplay itself is good fast stuff though there could have been perhaps another shot or two in there. Basically you can strike the ball in the three ways: the drive, the cut and the smash, and you need to learn that you cannot just play any shot at random. Smashing indiscriminantly will result in a rapid defeat. Direction change is mostly done for you, but by switching from forehand to backhand and changing the timing of the stroke (plenty of practice needed for that) you can influence the angle of stroke.

The game is filled throughout with bleeping noises and smart little sound effects. The sound of a ping pond ball tapping lightly on the ground is particularly effective. Less effective though is the crowd cheering which sounds like a flock of seagulls.

Ping Pong is a very classy little game. If you want a good head-to-head ball game you won't want to go looking around for anything else.

Mike Pattenden

Graphics	★★★★
Sound	★★★★
Toughness	★★★★
Staying Power	★★★
Value	★★★★

BOUNCES
Commodore 64/128
Beyond
Price: £9.95/cass

Beyond claim *Bounces* to be the deadly sport of the future. (Wonder where they got that idea from . . . er, Ballblazer?) Anyway you are either, "Erik the Red" or "Sir Ashley Trueblood", Erik being a rather fierce looking Viking and Sir Ashley a gallant knight in shining armour.

The game is played in the "Bounces arena" which looks like our auntie's living room. You have a side view. There are "Goals (which look more like holes) above each warrior's head. Each warrior is attached to the wall behind him by an overgrown rubber band — otherwise known as a "Plas-flex-wire" which will pull you to the back wall causing your warrior to fall down and to lose precious stamina.

Your combatants are equipped with personalised body armour which doesn't really help to protect. Your warrior also wears roller boots with "Fric-toe-caps" which help against the force of the plas-flex-wire (not very successfully).

All this is given to you by your sponsor which is either "Viking — Synthi Corp" or "Knight — Techni — Corp" depending on who you choose to be.

In your right hand you hold what is called a "Bounces ball snatcher" for catching and throwing the "Low — Grav Slugdomium sphere", (That means ball in plain English). The ball snatcher looks like one of those things that you used to use to throw and catch the ball on your Away-Day to Clacton at the beach. You can use the ball snatcher to throw and catch the ball in eight different directions.

The object of the game is to score more points than your opponent in a three minute bout — ninety seconds each way. There are various ways of scoring points. The highest scoring method is to shoot the ball in your opponent's goal. Or you can play dirty by either walloping them with your ball snatcher or firing the ball at them, you can also dodge the ball by jumping or ducking.

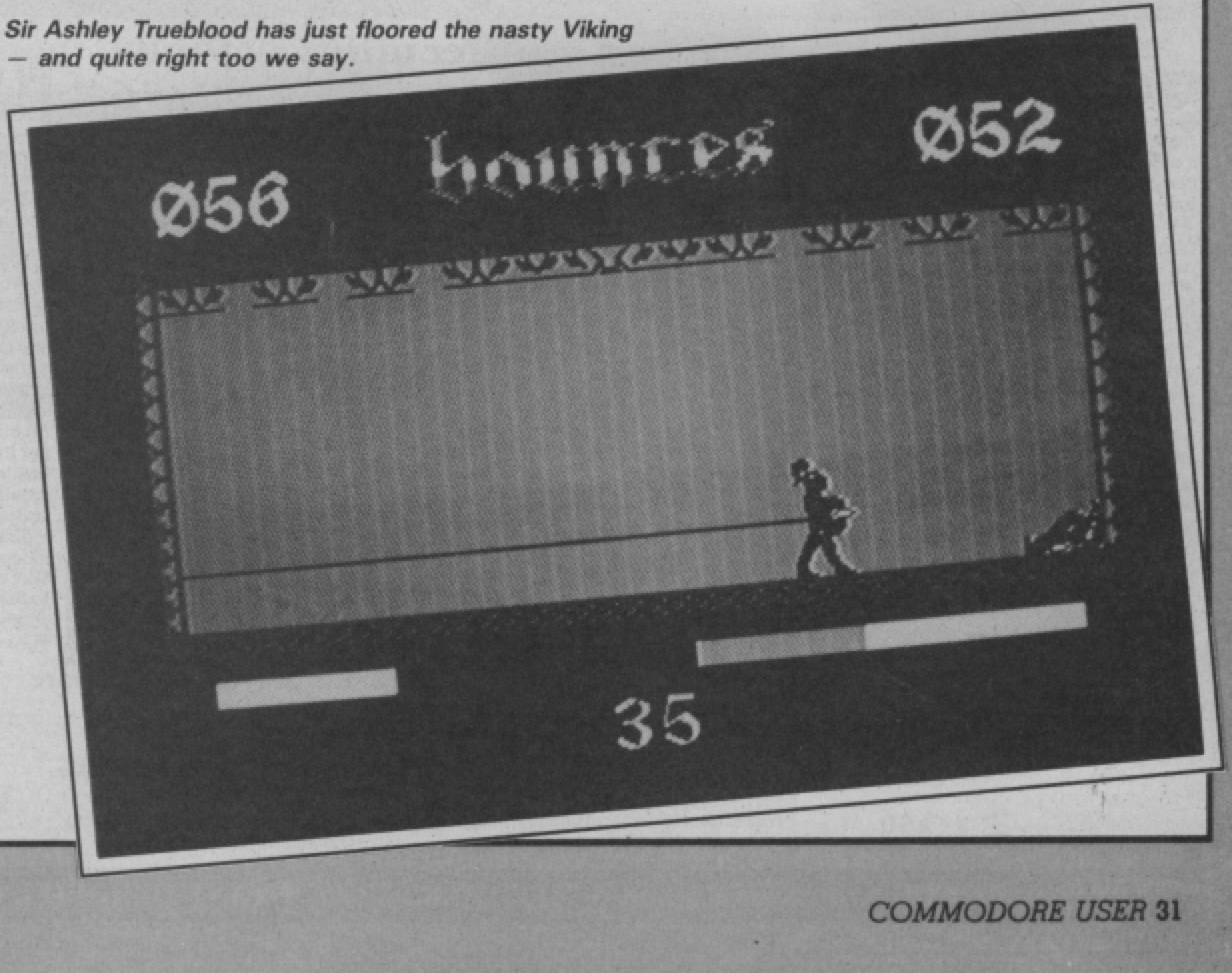
Although the sprites are neatly drawn they are just too small. When you first start playing the game you will probably notice that something is missing — variety perhaps?

The game is not really bad, but it lacks any sort of a challenge, once you have completed the first level you won't really want to continue playing despite the fact that there are five skill levels. Maybe they should have five different opponents instead. Anyway yet again another good idea down the drain. Thank heavens for arcade conversions.

Ferdy Hamilton

Graphics	★★★
Sound	★★
Toughness	★★★
Staying Power	★
Value	★★

Sir Ashley Trueblood has just floored the nasty Viking — and quite right too we say.



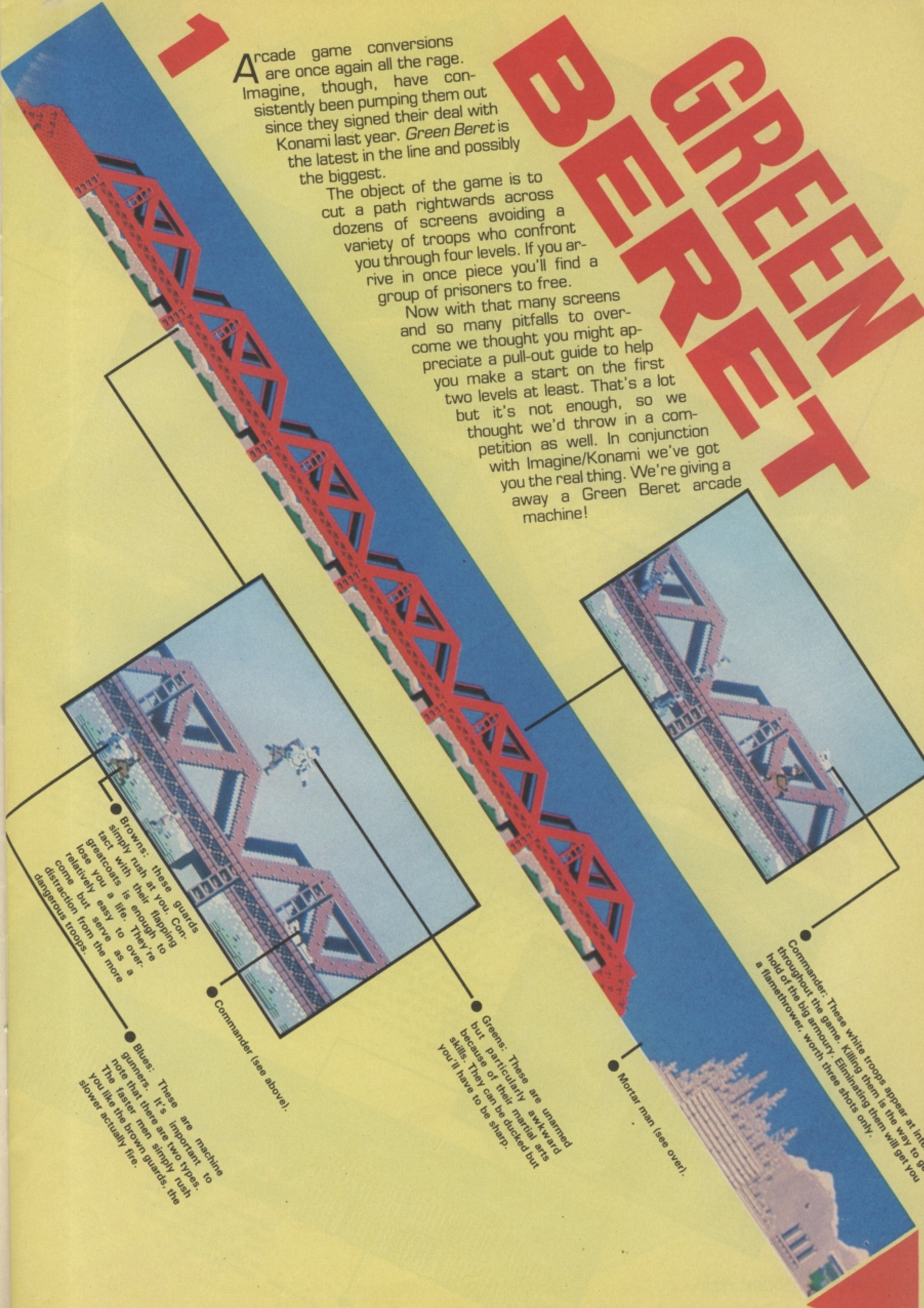
GREEN BERET

1

Arcade game conversions are once again all the rage. Imagine, though, have consistently been pumping them out since they signed their deal with Konami last year. *Green Beret* is the latest in the line and possibly the biggest.

The object of the game is to cut a path rightwards across dozens of screens avoiding a variety of troops who confront you through four levels. If you arrive in once piece you'll find a group of prisoners to free.

Now with that many screens and so many pitfalls to overcome we thought you might appreciate a pull-out guide to help you make a start on the first two levels at least. That's a lot but it's not enough, so we thought we'd throw in a competition as well. In conjunction with Imagine/Konami we've got you the real thing. We're giving a away a Green Beret arcade machine!



Browns: these guards simply rush at you. Contact with their flapping greatcoats is enough to lose you a life. They're relatively easy to overcome but serve as a distraction from the more dangerous troops.

Commander (see above).

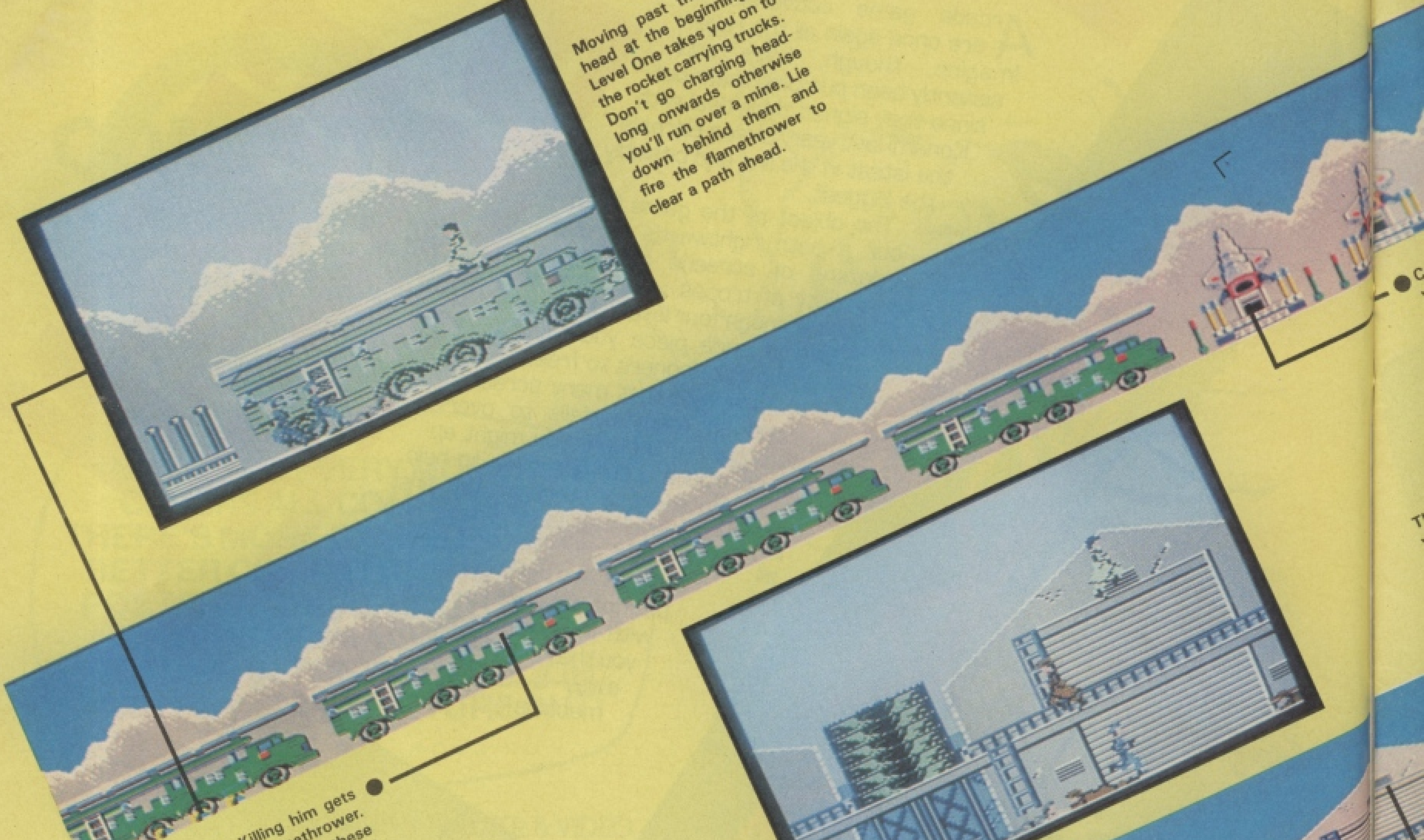
Greens: These are unarmed but particularly awkward because of their martial arts skills. They can be ducked but you'll have to be sharp.

Mortar man (see over).

Commander: These white troops appear at intervals throughout the game. Killing them is the way to get hold of the big armoury. Eliminating them will get you a flamethrower, worth three shots only.

Blues: These are machine gunners. It's important to note that there are two types. The faster men simply rush you like the brown guards, the slower actually fire.

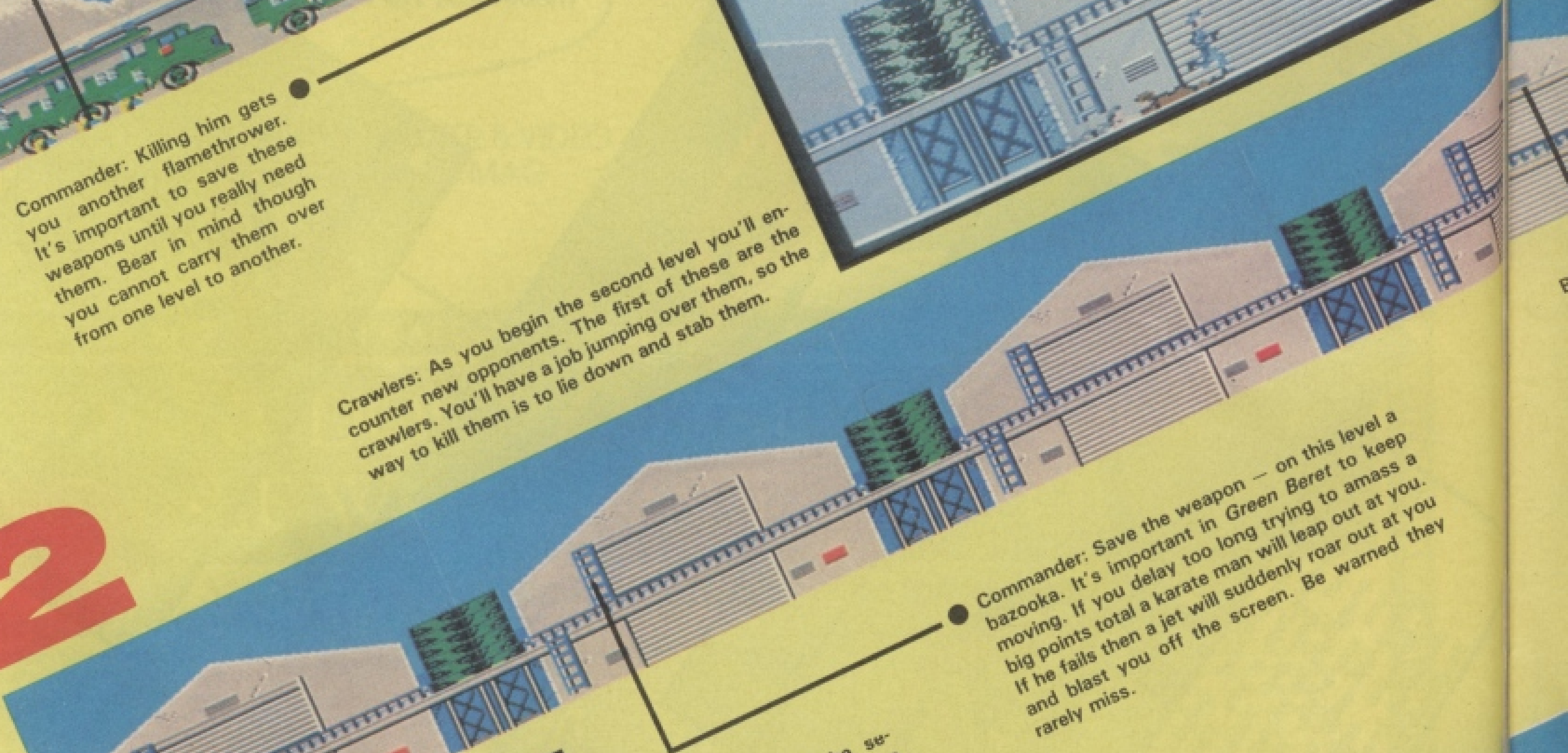
Moving past the bridgehead at the beginning of Level One takes you on to the rocket carrying trucks. Don't go charging headlong onwards otherwise you'll run over a mine. Lie down behind them and fire the flamethrower to clear a path ahead.



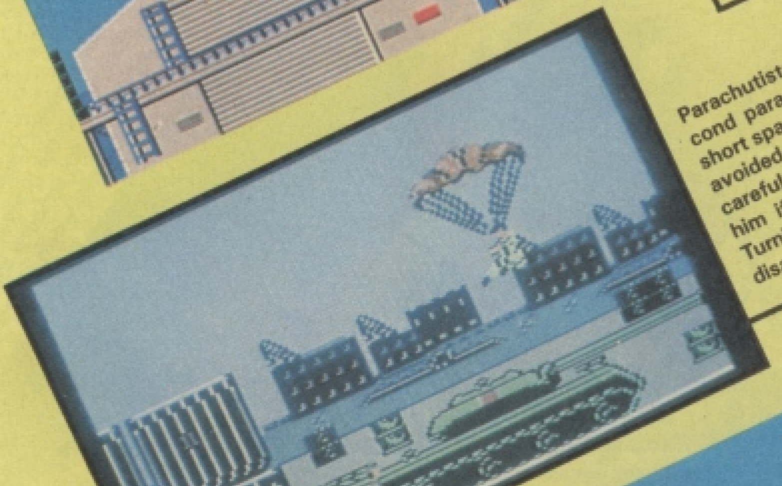
Commander: Killing him gets you another flamethrower. It's important to save these weapons until you really need them. Bear in mind though you cannot carry them over from one level to another.

Crawlers: As you begin the second level you'll encounter new opponents. The first of these are the crawlers. You'll have a job jumping over them, so the way to kill them is to lie down and stab them.

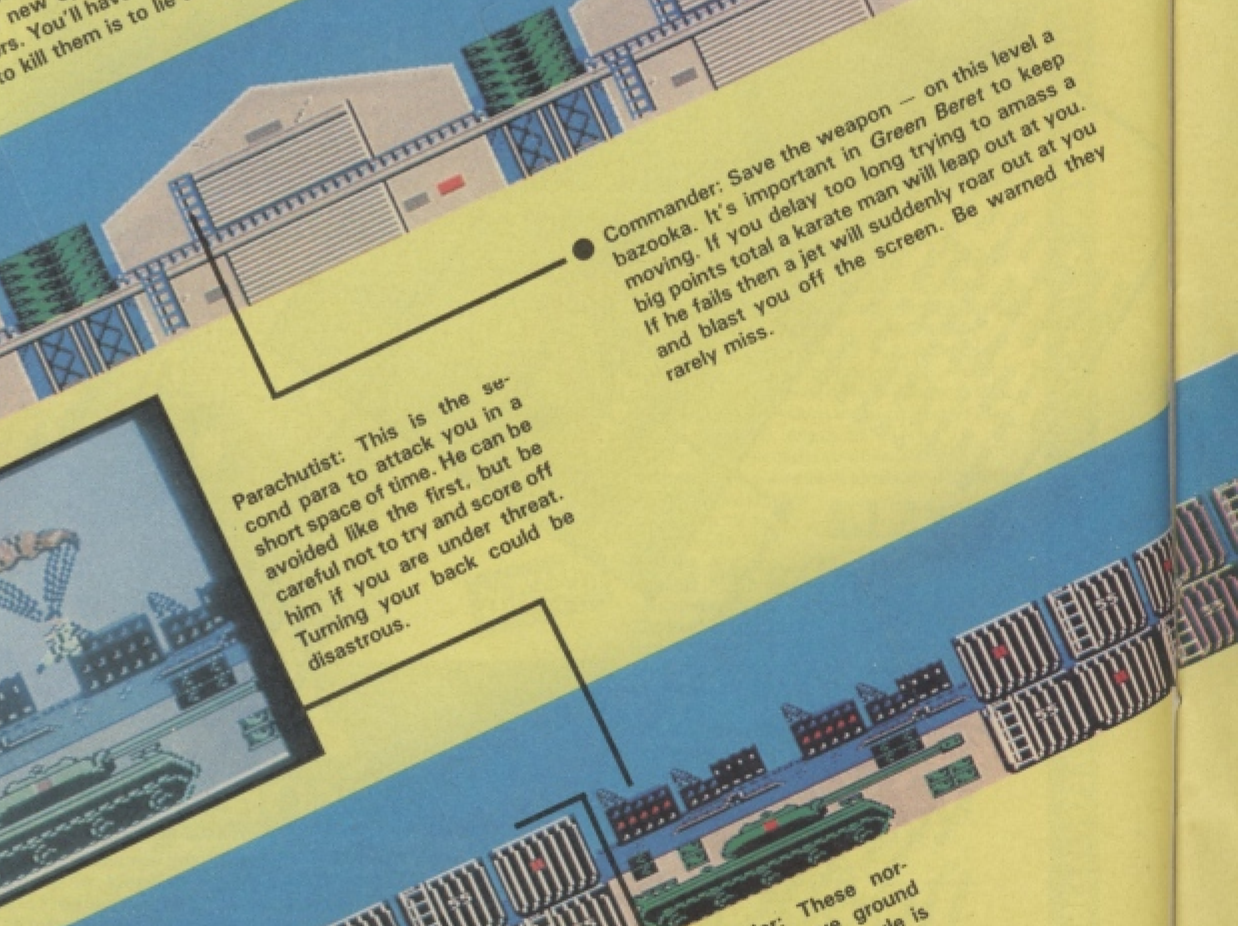
2



Commander: Save the weapon — on this level a bazooka. It's important in *Green Beret* to keep moving. If you delay too long trying to amass a big points total a karate man will leap out at you. If he fails then a jet will suddenly roar out at you and blast you off the screen. Be warned they rarely miss.



Parachutist: This is the second para to attack you in a short space of time. He can be avoided like the first, but be careful not to try and score off him if you are under threat. Turning your back could be disastrous.

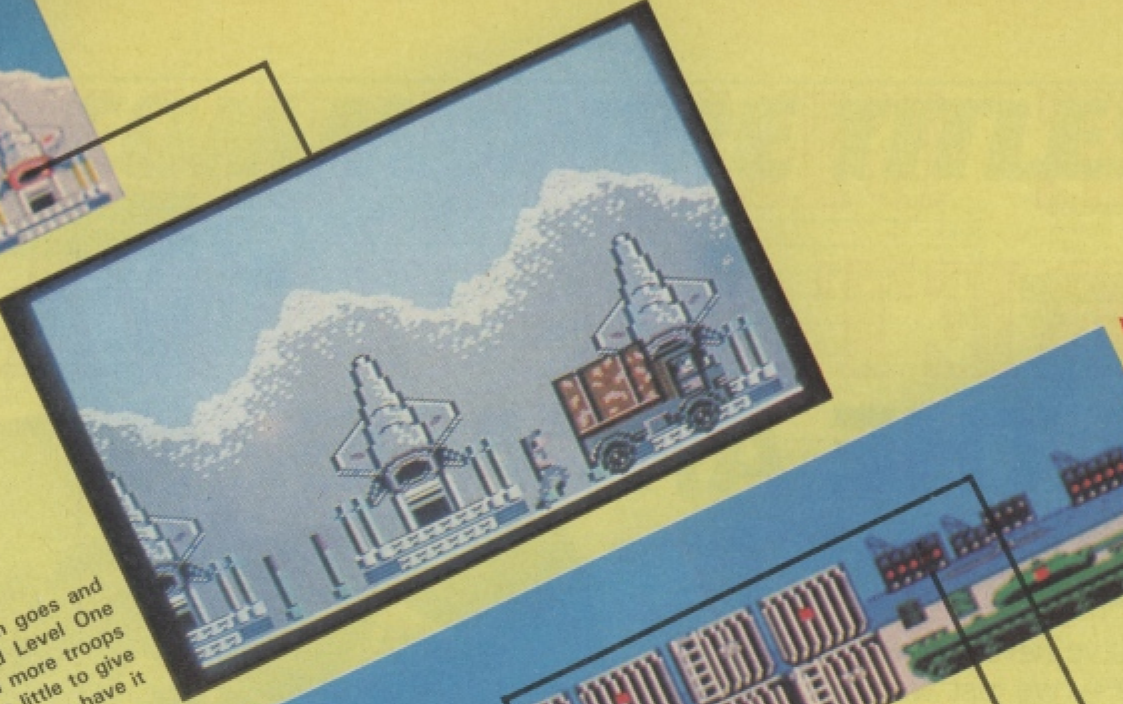


Commander: These normally lurk above ground level, so a general rule is to stay off the ground as much as possible.

Bazooka carrier



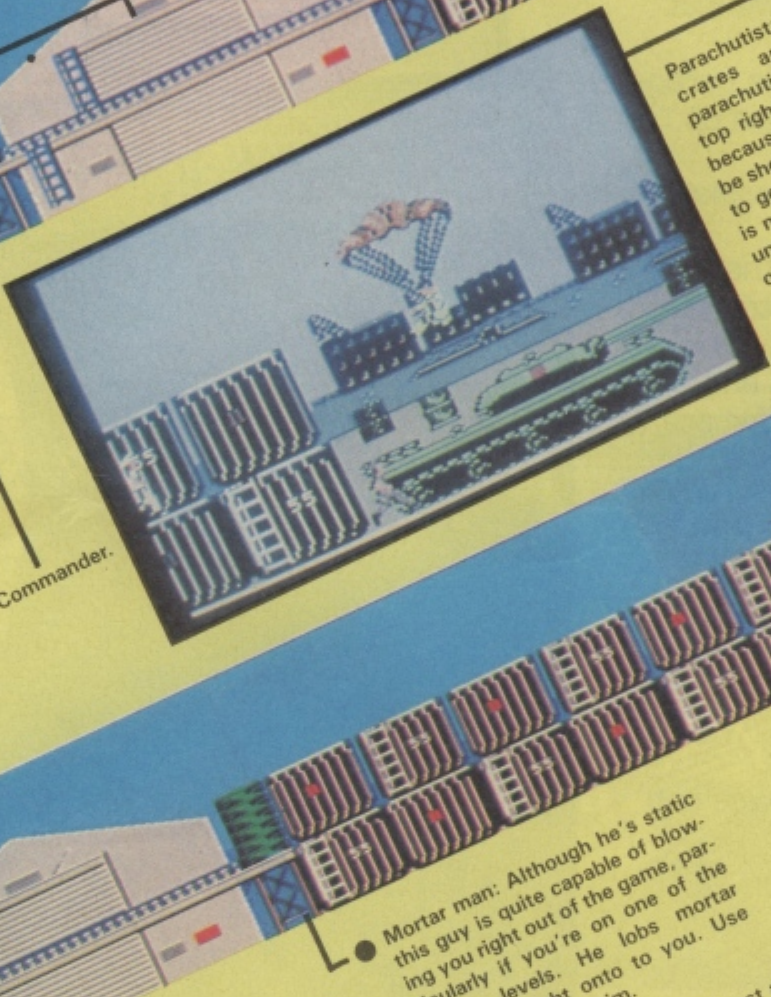
Commander: save the weapon, you'll need it very shortly.



The truck: Just as the klaxon goes and you think you've completed Level One along comes this truck and more troops jump out at you. Back off a little to give yourself some room and let them have it with the flamethrower.

Parachutist: As you pass the haulage crates and enter the dockyard a parachutist will suddenly appear at the top right of the screen. He is awkward because he drops things on you. He can be shot if you stay on the top level. Trying to get under him so he drops behind you is not easy because you'll have to pause until he's dropped everything. A tough one.

Bazooka carrier



Bazooka man: He's another of the nastier troops you meet on level two. If you don't avoid him or stab him he'll kneel down and let you have it!

Commander.

Mortar man: Although he's static this guy is quite capable of blowing you right out of the game, particularly if you're on one of the higher levels. He lobs mortar shells straight onto to you. Use the bazooka on him.

Savage dogs: The big test at the end of Level Two is the dogs. As you reach the sub (in this pic a pile of pixels) a dog handler comes out and unleashes some vicious hounds on you. Give yourself space. You only need the knife. They attack in threes first from the left, you lie down to take these out. Stand for the ones on the right — these leap up at you. Repeat the process twice more to complete the level.



GREEN BERET

THE GREAT GREEN BERET GIVEAWAY

WIN THE ARCADE MACHINE!



Don't tell us you've never wanted to own an arcade machine — we just wouldn't believe you. Just think about it planted in the corner of your bedroom whispering 'play me, play me.' You'd never have to look down the back of an armchair for lost 10p pieces again. Be the envy of your friends, charge admission, go without sleep for days on end.

We've rummaged around in Imagine's garage and come up with their Green Beret coin op. To win it, all you have to do is answer the ridiculously easy questions and the tiebreaker we've set below.

The winner gets the chance to visit the illustrious offices of Commodore User to receive his or her prize [if we haven't worn it out by then], get a bagful of shiny 10p pieces and meet the dazzling CU team. Also on offer are 30 runners-up prizes of the game itself.



The Questions

1] What does Konami mean?
  a. Technology
  b. Konami has no meaning
  c. Raw fish

2] Which game from the three below was not an Imagine/Konami arcade conversion?
  a. Ping Pong
  b. World Series Baseball
  c. Comic Bakery

3] What was Konami's first arcade release?
  a. Asteroids
  b. Defender
  c. Block Game

Name ....

Address ....

Answers: 1.............................. **2**.............................. **3**..............................

Tie Breaker: What original 64 game do you think would be the most successful coin-op, and why?

....

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Send this coupon (or a copy) to: Green Beret Competition, Commodore User, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU. Competition closes 15th May.

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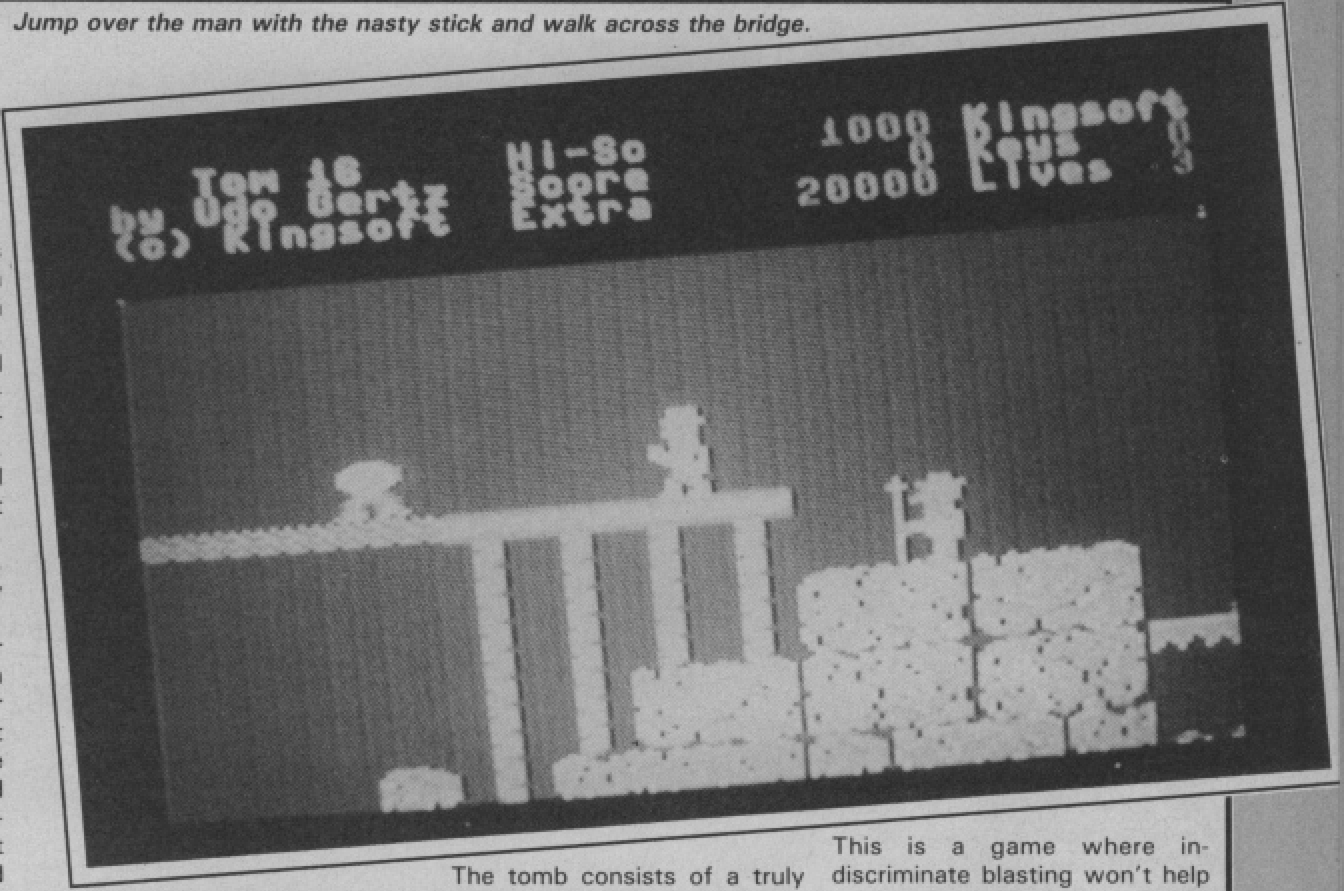
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TOM THUMB
Commodore 16 and Plus 4
Anirog Software
Price: £6.95/disk

Jump over the man with the nasty stick and walk across the bridge.



As I recall it the story goes something like this. Once upon a time there lived in the middle of a big forest a lonely old couple. They were very sad because all their lives they had wanted a little boy but, for one reason or another he never showed up. There could have been a medical problem I suppose, but test tubes didn't exist in those days. And to make matters worse, there were no gooseberry bushes in the forest.

Then, one day, as if to answer their dreams Mrs Thumb found a little boy. On returning from her weekly trip to the supermarket on the edge of the forest, she was unpacking the shopping and there he was, wedged in between the toilet rolls and the cat food. "We'll call him Tom" said Mr Thumb, "because if we call him Tiddles it'll confuse the cat".

Anyway, to cut a long story short *(not that short, Ed.)*, the years passed and everybody got a lot older. Then, one evening, during a dull bit in Dallas, Mrs Thumb turned from the television and said to her husband "Have you noticed anything strange about Tom?"

"Well, I don't know many other fifteen year olds that are three inches tall, but apart from that he seems to be a fairly normal lad".

"I think we should sell him to a software house. They can put him in a computer game and we'll make lots of money". "All right then", said Mr Thumb shrewdly.

And that's how Tom Thumb came to feature in a C16 game.

The game itself is fun to play as well as providing quite a challenge even to highly skilled players such as myself. Tom has entered the tomb of Pharaoh Manilo (sounds more like a Philippino dictator than an Egyptian ruler) to try and lay his hands on the Pharaoh's fabulous wealth. And who can blame him, after being sold down the river by his parents like that?

The tomb consists of a truly amazing 178 screens of pretty impressive hi-res graphics. I didn't get a look at everyone, so I suppose we'll just have to take Anirog's word for it that they all exist.

As Tom is moved around the detail scrolls away behind him. This gives the impression that you really are in a large maze and is preferable to the kind of game where the whole screen is redrawn when you reach the edge.

Each section of the maze has it's bunch of monsters to be dealt with as well as a few environmental hazards like crumbling walkways and laser beams. This is a game where indiscriminate blasting won't help — in fact there's no shooting involved at all.

The secret is to manoeuver your way around the obstacles. This is just as well because the monsters are so cute I don't think I would have felt comfortable blasting them into oblivion.

There's something peculiarly unthreatening about an egg on legs, a pea with a hat on and huge boggle eyes, and a devil with a cheeky smile.

Once you have the knack of squeezing past them, you can pick up a key which opens a door on other parts of the maze and eventually to the treasure. On the way there are little treasure chests to collect which give you points and an incentive to reach the final goal.

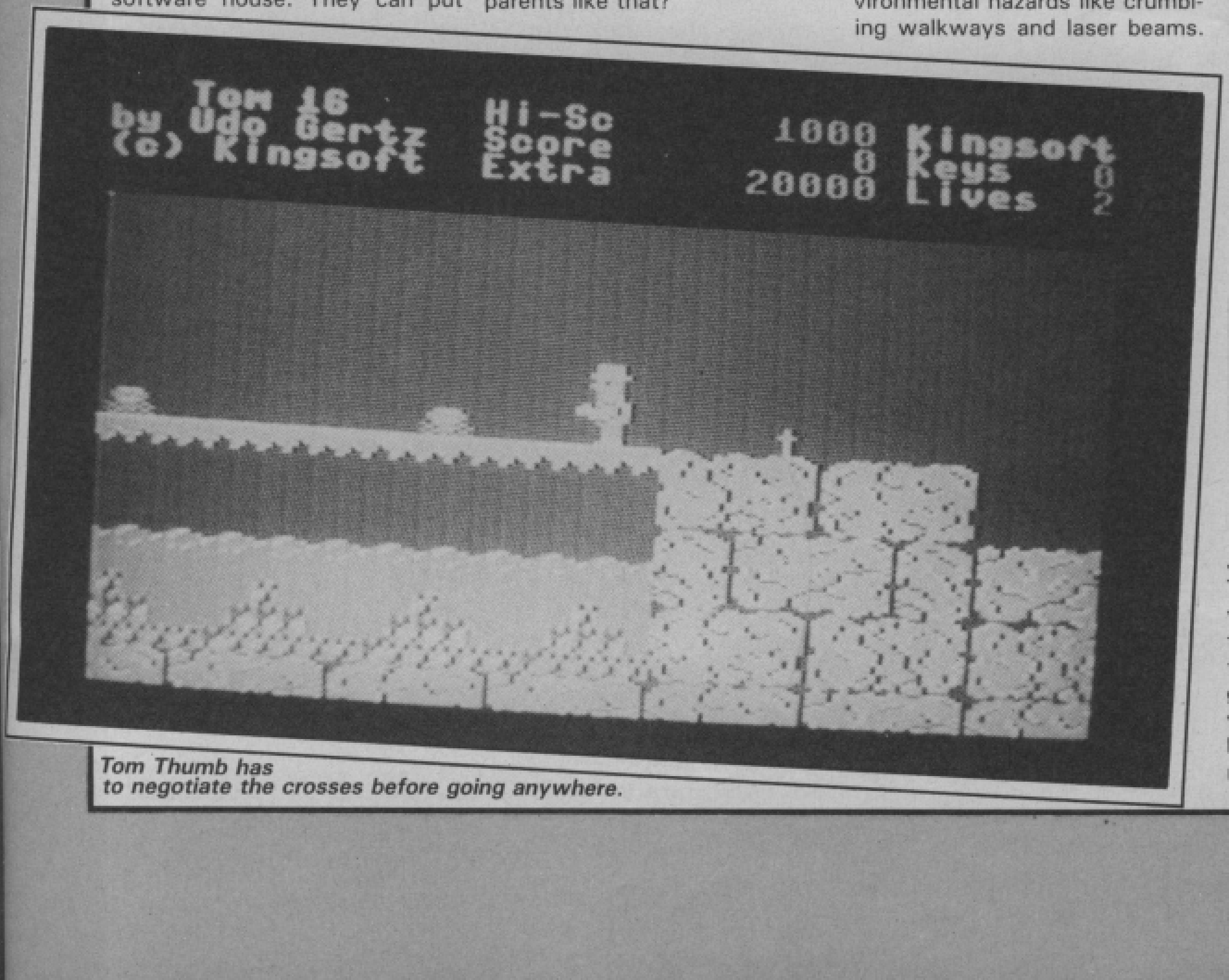
Tom Thumb is a game it's hard not to like. The idea is good and it's been very well put together, the graphics and sound are both excellent.

Ken McMahon

Graphics	★★★★
Sound	★★★★
Toughness	★★★★
Staying Power	★★★★★
Value	★★★★

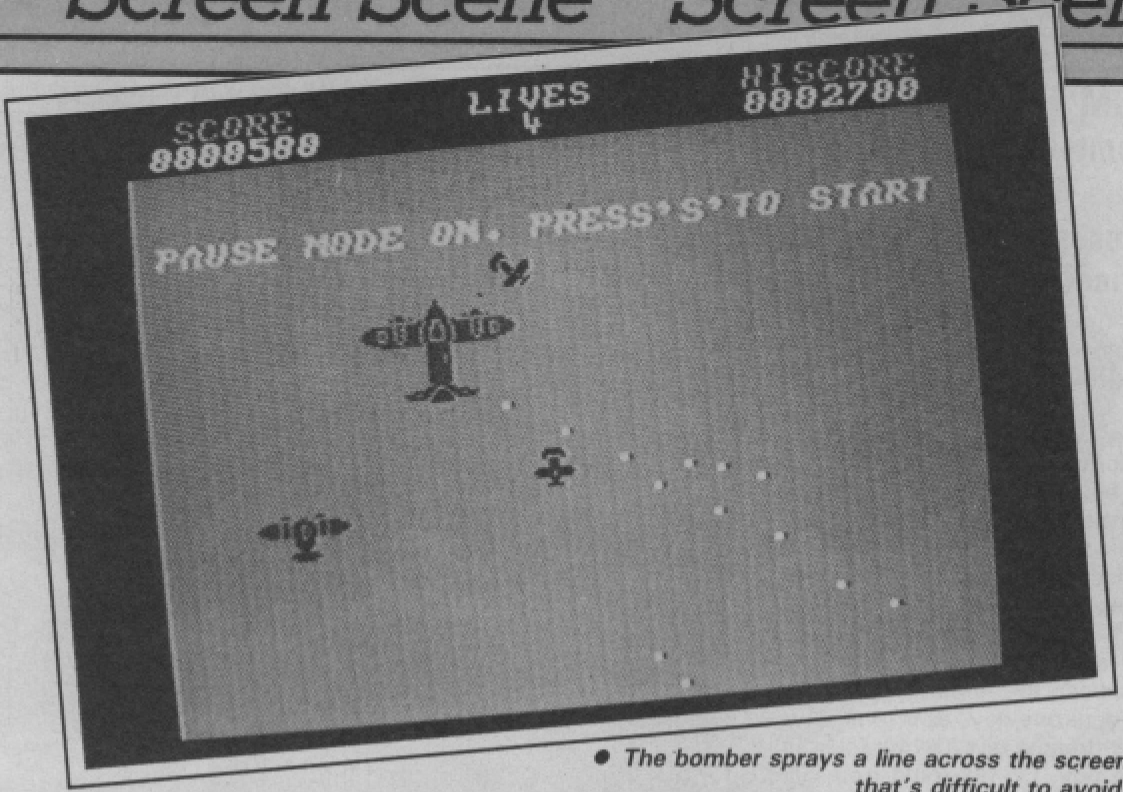
Anirog are really beginning to make the running in the C16 games.

Stop Press. If you thought Tom Thumb was good just wait till you see Winter Events. Perhaps the month of June is not the best time to launch a winter sports game — but don't let that put you off this one. It really does look like a smash. Catch a full review in next month's CU.



Tom Thumb has to negotiate the crosses before going anywhere.

REACH FOR THE SKY
C16 and Plus/4
Gremlin Graphics
Price: £6.95/cass



● *The bomber sprays a line across the screen that's difficult to avoid.*

I had high hopes for this game. Chocks away, bandits at four O'clock, cabbage crates over the briney, all that sort of thing. But if you're looking for a WW11 air combat simulation I think you'll be more than a little disappointed with this.

Reach For The Sky can be played either with a joystick or the keyboard. As my joystick was broken I had no option than to try the second method. This made things considerably more difficult, but alas no more interesting.

To begin with you are given a status rating, which for novices is *robin*. Then you're thrown unceremoniously into the 'combat zone'. Your plane, presumably a Spitfire, is positioned at the bottom of the screen. It can be manouevred left and right across the screen, or up and down a couple of centimetres. This is all very well if you have a joystick. But if you're using the keys then you'll probably have to limit yourself to left, right and fire. Anything more gets confusing, not to mention very tiring.

In case you hadn't guesed by now hordes of enemy fighters appear at the top of the screen and make their way, shooting, towards the bottom. You have to shoot back while at the same time dodging out of the way of the bullets as well as the enemy planes you missed.

You get ten points for every aviator put out of business as well as bonus points for shooting down the blue squadron. The blue squadron — a dozen or so planes flying in formation — appears on each level to liven things up a little. When I shot them down on level one I was rewarded with extra guns. The increased opportunity for creating mayhem made the game a little more exciting.

Other diversions which liven things up are the bombers which appear from the bottom of the screen i.e. going in the opposite direction to everything else. You have to let rip with a hefty barrage to bring them down and in the meantime their tailgunners return your fire. The enemy fighters are still pouring down on you while all this is going on so holding on to your four lives can at times be extremely difficult.

Survive for long enough and you graduate from *robin* to *buzzard* status. If you can maintain interest there are another six levels to follow. I must admit to becoming bored very quickly with the virtually prehistoric 'shoot 'em up' format.

Ken McMahon

Graphics	★★★
Sound	★★
Toughness	★★★
Staying Power	★★
Value	★★

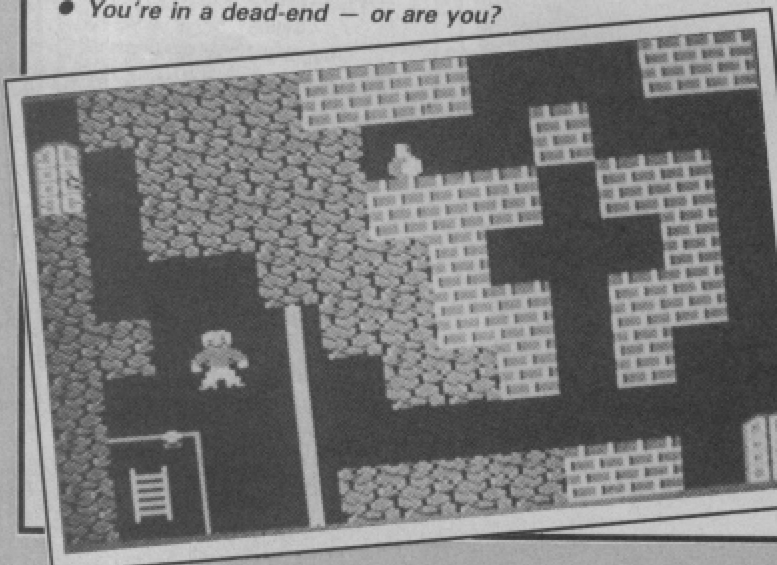
GHOST TOWN
Commodore C16 and Plus/4
Anco Software
Price: £6.95/disk

What's the connection between this game and the last single by The Specials? Well, I'm sorry to disappoint you, but there isn't one. The Specials record featured better sound and sold in far greater numbers than this game ever will. It was also cheaper. Does the game have any good points? Surprisingly, yes.

The blurb, in the usual fashion, tells you that long ago Belegro the Wizard cast a spell that turned a prosperous little town into a ghost town. Before leaving to take up his new job with the British Government, he took everything of value and stored it in one room.

You must work your way through the game's nineteen rooms to find Belegro and the treasure. Now n-n-n-nineteen roams isn't the kind of number that makes you break out into a sweat at the propsect of cracking it. When combined with the general lack of complexity you'd expect that to be a serious drawback, but I enjoyed it nonetheless.

● *You're in a dead-end — or are you?*



Your computer counterpart is a sprite man whose limbs and features remain totally static even when he's moving. Each screen is a simple maze made up of bricks with the odd bush dotted here and there. Clues must be solved and objects collected from each screen in order to progress.

For example, in the first screen there is a flower on a bush which must be picked. Before you can do this you must have a pair of secateurs. The secateurs are hanging from another bush though, and unless you use a ladder to reach them you'll be prickled to death in the attempt (*point taken. Ed*). The ladder is in a locked shed and the key is hidden on another screen.

If it all sounds dreadfully complicated the only reassurance I can offer is that it isn't. The above takes about five minutes to work out and the same goes for the other problems in the game.

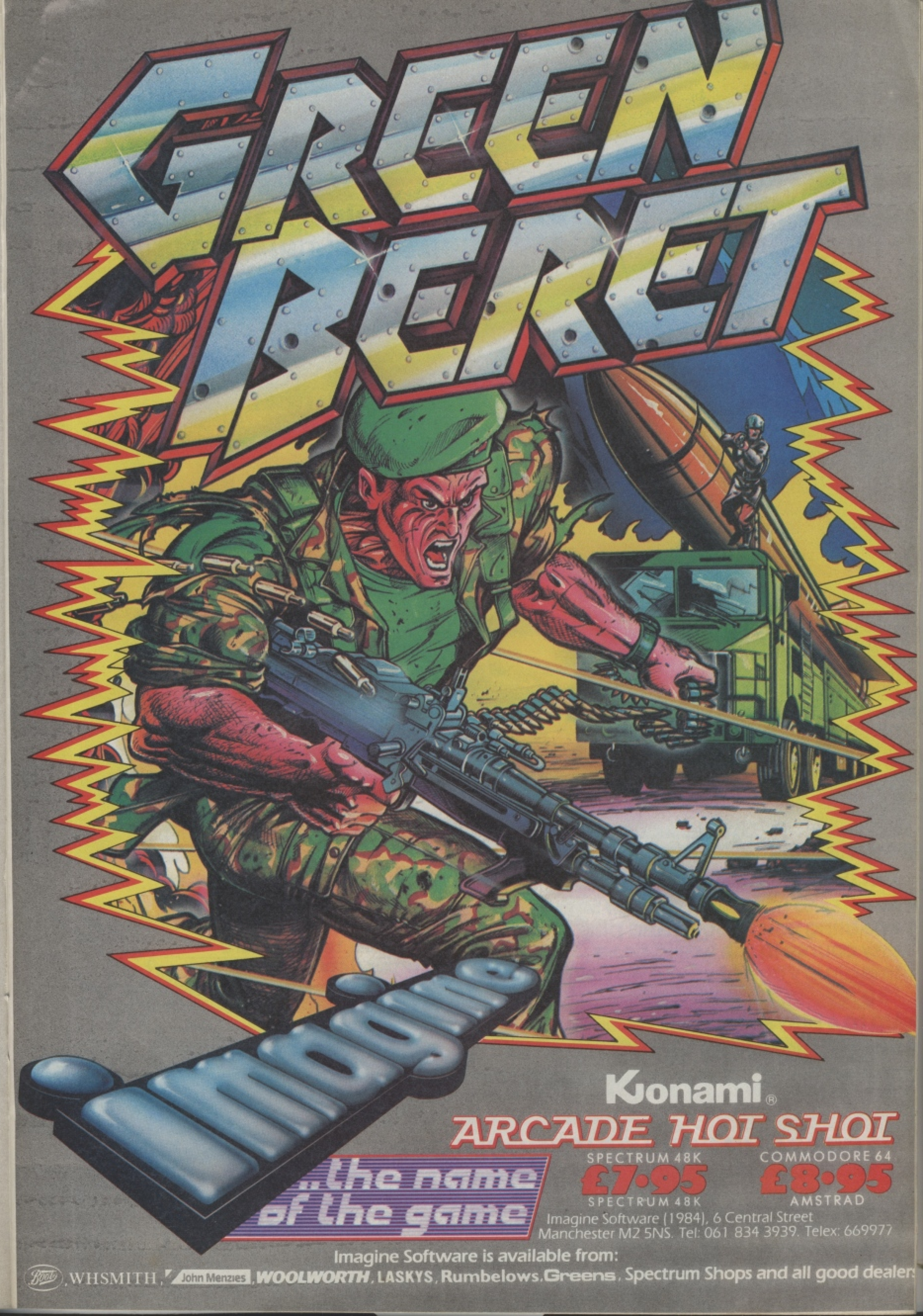
Some rely on sheer good luck, like the room with four doors at the end, three of which lead to a snake pit. Once you've worked this out you don't make the same mistake again.

There are one or two screens that rely on quick reflexes rather than mental agility. A pulsating laser beam to dodge past and even the spider from Tomb Thumb puts in a guest appearance.

Looking at the hard evidence, Ghost Town doesn't have a lot going for it. The graphics and plot are simple, inane even, but for some strange reason I found playing it quite enjoyable (*but you're weird — Ed*). For experienced gamers the fun is bound to be short lived. I completed over a dozen screens inside a couple of hours.

Ken McMahon

Graphics	★★
Sound	★★★★
Toughness	★★
Staying Power	★★★
Value	★★


GREEN BERET
Imagine
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Manchester M2 5NS. Tel: 061 834 3939. Telex: 669977
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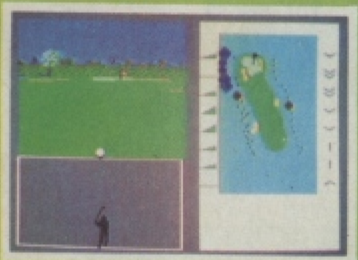
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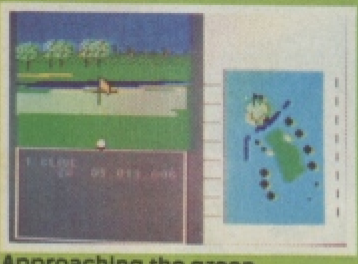
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ariolasoft
HIGH PERFORMANCE PROGRAMS

Commodore 64 Chart

This chart is based on the MicroScope chart as compiled by Gallup.

GALLUP

MicroScope is the weekly trade paper of the microcomputer industry. If your computer store doesn't display the latest MicroScope chart, ask the manager to call Mark Salmon on 01-631 1433 — we'll send a copy every week.

Chart Chat

A quick Uridium-break while we bring you this chart report on — Uridium. Uridium is the flavour of the month, straight in at Number One in the General and the 64 chart. So the plain 'n' simple shoot 'em up isn't dead — at least not if it's as slick and classy as Uridium.

And now it's over to Mr. Angry for a Chart gripe. The dirty tricks brigade at certain 'major' software houses are going to change the way the Chart is put together so as to disqualify the budget cheapo games, from the likes of Mastertronic and many more.

Now we all know that £2 games (especially Mastertronic's) sell faster than fish and chips in Blackpool, so excluding them will distort and falsify the chart. If the £10 games merchants can't compete with cut-price operations, they should give up and start selling knitting patterns — and not change the rules to suit themselves.

Back to Uridium to vent our anger.

NEW	Uridium	Hewson
NEW	Hardball	U.S. Gold/Accolade
3	Yie Ar Kung Fu	Ocean
4	Kung Fu Master	U.S. Gold
NEW	Elektra Glide	English
NEW	Zoids	Martech
7	Eidolon	Activision
8	Kane	Mastertronic
9	Mercenary	Novagen
NEW	FA Cup Football	Virgin
11	Rock & Wrestle	Melbourne House
12	Desert Fox	U.S. Gold/Access
13	Commando	Elite
14	Lord of the Rings	Melbourne House
15	Master of Magic	Mastertronic
16	Bounder	Gremlin
17	A.C.E.	Cascade
18	Hypersports	Ocean
19	Kik Start	Mastertronic
20	One Mand and His Droid	Mastertronic

General

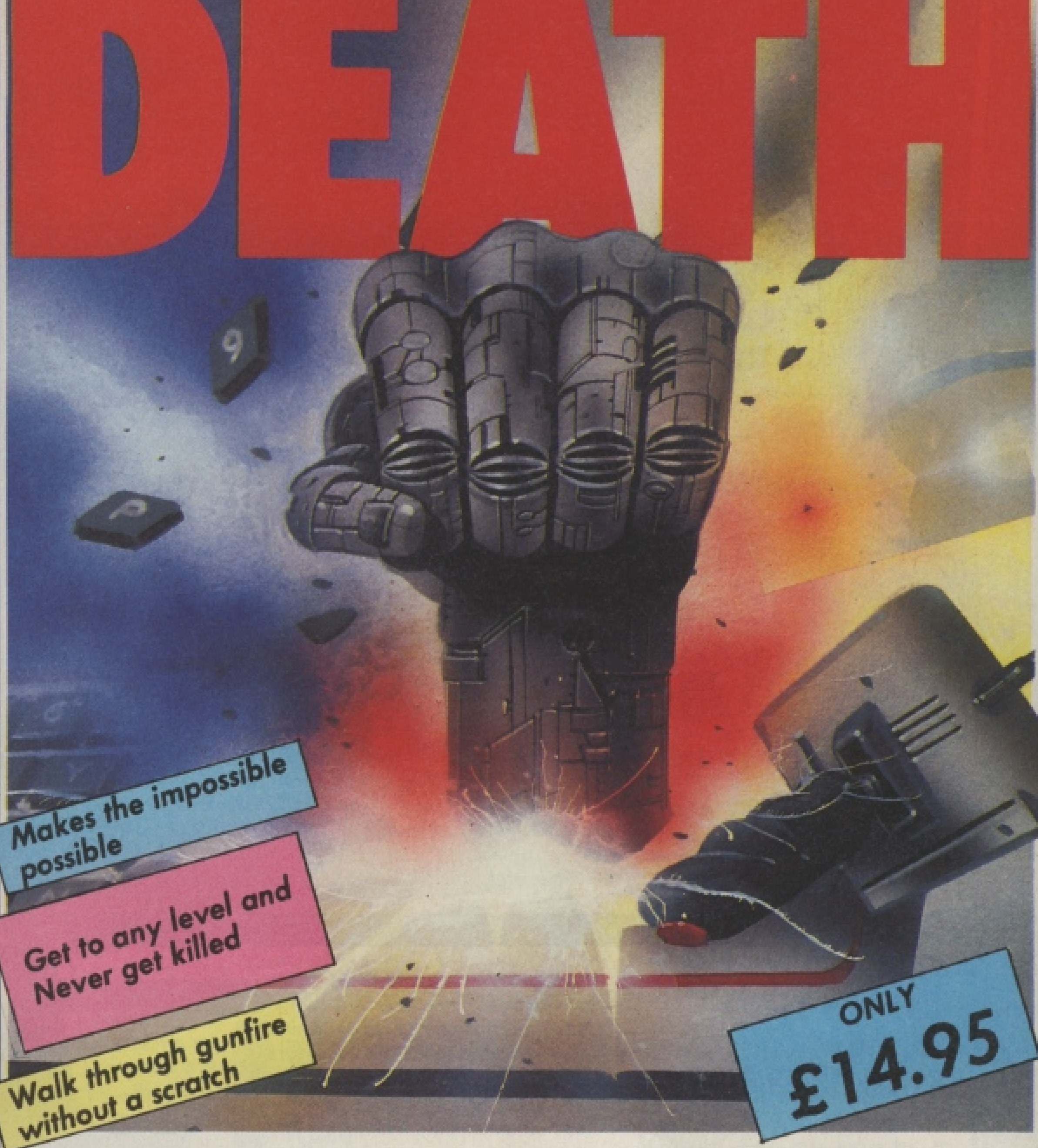
NEW	Uridium	Hewson
2	Yie Ar Kung Fu	Ocean
NEW	Hardball	U.S. Gold/Accolade
4	Commando	Elite
5	Formula One Simulator	Mastertronic
6	One Man and His Droid	Mastertronic
NEW	FA Cup Football	Virgin
8	Rambo	Ocean
NEW	Skyfox	Ariolasoft
10	Hypersports	Ocean

C16

NEW	Mr Puniverse	Mastertronic
2	Big Mac	Mastertronic
NEW	Commando	Elite
NEW	Winter Olympics	Tynesoft
5	Formula One Simulator	Mastertronic
6	Rock Man	Mastertronic
7	Tutti Frutti	Mastertronic
8	BMX Racers	Mastertronic
9	Squirm	Mastertronic
NEW	C16 Classics II	Gremlin Graphics

GAME KILLER

LIFE AFTER DEATH



Q. *What is Game Killer?*
A. ***A revolutionary powerful cartridge that now lets you play all those impossible games without being killed!***
Walk fearlessly through gunfire, disaster and danger without a scratch.
Q. *Sounds difficult.*
A. ***It's simple. Just plug it in the back of your computer and press a button.***
Q. *You mean I can play my games all the way to the end.*
I don't believe it!
A. ***Yes – incredible but true! It works on all those thousands of games with sprite collision.***
Q. *Sounds like science fiction! I suppose it's available in 2001.*
A. ***It's here now!***
Q. *I'll believe it when I see it!*
A. ***Exactly, so why don't you go to your local computer shop.***

COMMODORE 64/128K
OTHER FORMATS AVAILABLE SOON!

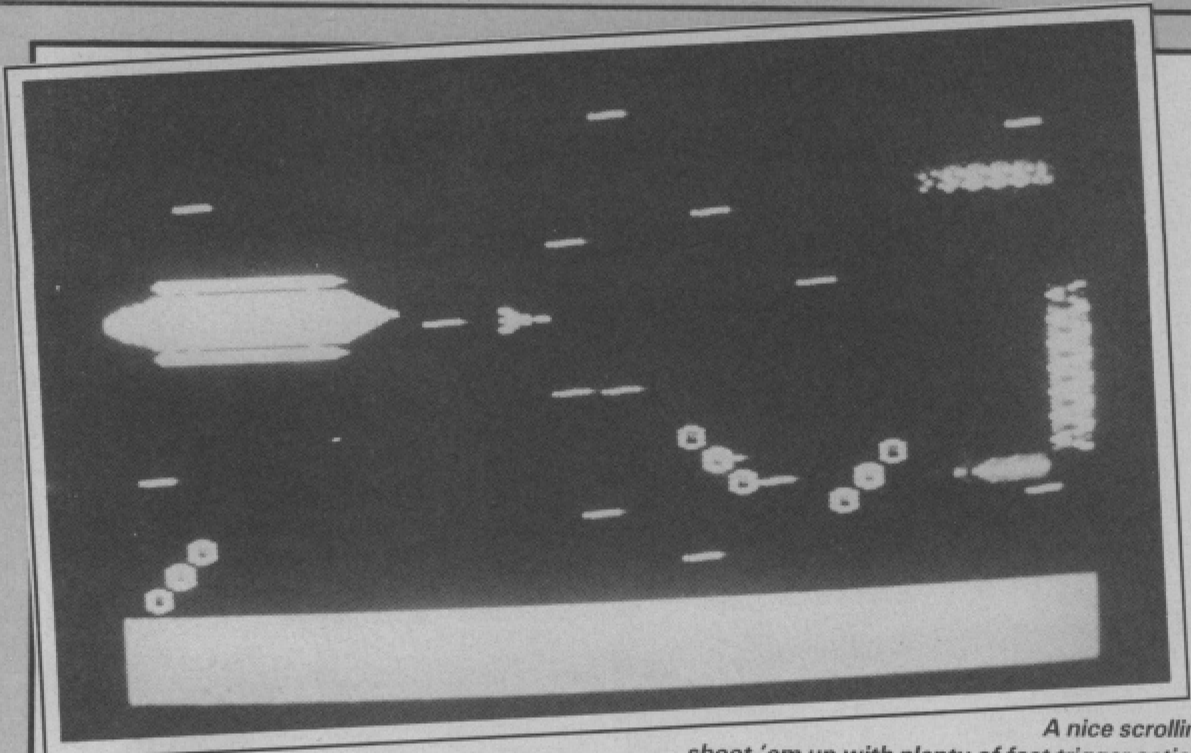
The **Robtek** Gamekiller is available from all good computer dealers.

Enquiries to **Robtek** (*formerly known as Robcom*) Ltd., 36 Market Place, Falloden Way, London NW11 6JP. Telephone: 01-209 0118.

Patent and copyright applied for

ROBTEK

Please send me ______ Gamekiller/s (£14.95 each)
I enclose cheque/Po for £ ______ including 50p p+p
My Visa no. is ______
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Code CU3
Allow up to 28 days for delivery



A nice scrolling shoot 'em up with plenty of fast trigger action.

SPACE ESCORT
C16 and Plus/4
Atlantis
Price: £2.99/cass

As you will have no doubt noticed in the software charts and computer stores, cheap, good quality software is on the up and up. And about time too, not all us Commodore users are Rockafellers.

Well done Atlantis for introducing Space Escort to us. The game is fast, addictive and characteristic of those great arcade shoot 'em ups.

The inlay card describes the menacing Space Craft that blow your ship to smithereens as Space Flies, Spheroids, Xethus Spirals, Griga Kamikaz, Laser Kamikaz, Asteroids and Mother Ships. A bit of a mouthful for us lesser beings.

The idea of the game is to guide a liner through space avoiding the waves of aliens. You are given 10 lives and oh boy will you need them, especially when you are bombarded by some of the weird and wonderful sounding aliens.

To help you with your task, the liner you are escorting has been given shields — White = 0, Green = 2, Blue = 3, and Red = 4 or more. If you manage to glide your liner through space to the planet, you are awarded a bonus of 8000. If you think that is the end of the game you are sadly mistaken. There's only 25 more liners for you to escort. Shattered! I am just writing about it. Definately not a game for the weak hearted I assure you.

The only real criticism I can make is the explosions, they really do take too long to disappear. It's a bit annoying when you are being attacked by a fleet of marauding aliens, especially when you are on your last life and you can't see a missile hurling towards you because an explosion is covering it.

A feature I found most useful was being able to "continue old game". Great when you are on your last life and a surprise attack blasts your ship out of recognition, you just start that particular phase again.

Congratulations to Atlantis for a highly entertaining shoot 'em up which, at only £2.99, does make you wonder how some companies have the nerve to ask for up to £7 for their inferior games.

James Pickering

Graphics	★★★
Sound	★★★
Toughness	★★★★
Staying Power	★★★
Value	★★★★

PANIK
C16 and Plus/4
Atlantis
Price: £2.99/cass

Panik is a bargain basement platform and ladders game. Cheap software is all very well and good but these days people want quality as well and Panik is a bit short on that.

You are a chubby little character with a red flat cap. The idea is to smash the monsters who share your platform — over the head with a large shovel — conveniently placed in your hand.

First of all you dig a hole for the unsuspecting nasties. Once they fall into it you have just a few seconds to whack them on the head with your shovel to finish them off.

If you are not quick enough, the monsters turn into what look like white sacks. Now you are in trouble because to finish these off you need to knock them through the platform and make them fall through two levels to kill them.

If you fail again then the sack turns into a green, long-legged monster which takes three levels to be killed. This is where things really get difficult because whilst you are trying to kill the monsters your oxygen supply is running out. What do you do? Panic — well that's the name of the game. As you progress from level to level some monsters have already turned into sacks and long-legged monsters — thoughtful of them isn't it?

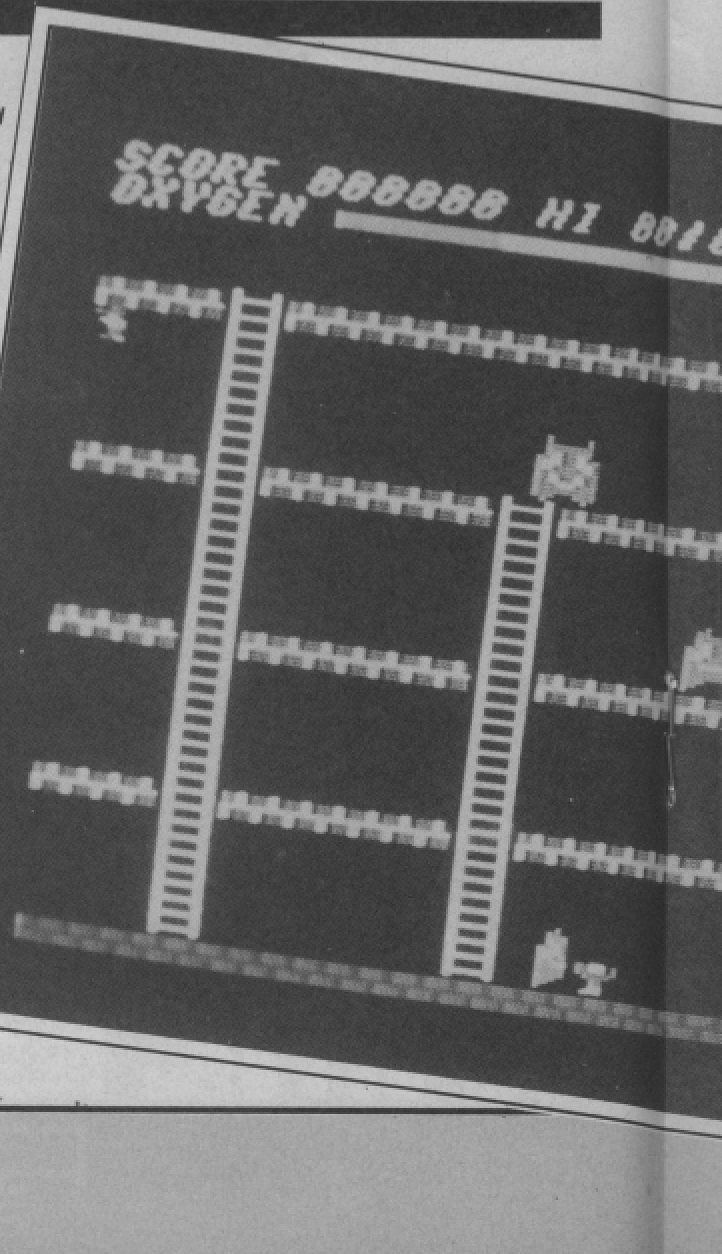
The game is really not too bad, but when you finish a level, the next level is virtually the same. A bit disappointing after all that hard work. What a pity that Atlantis didn't put a bit more time and effort into producing what could have been a fast and addictive game.

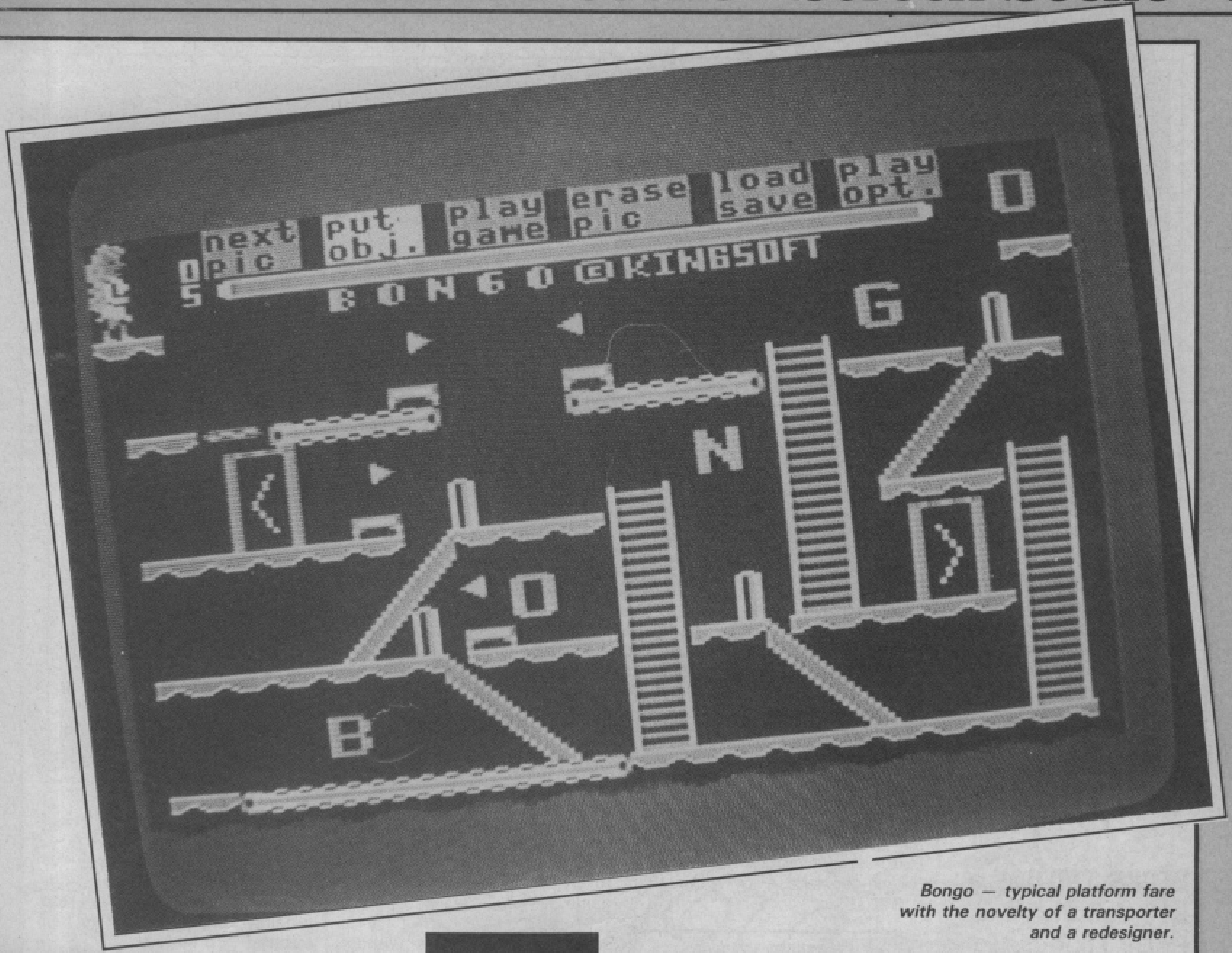
If you are really desperate for a version of Panik for your C16 then this will just about fit the bill. If you are simply on the lookout for a decent levels and ladders game then look elsewhere — check out Tom Thumb for example.

James Pickering

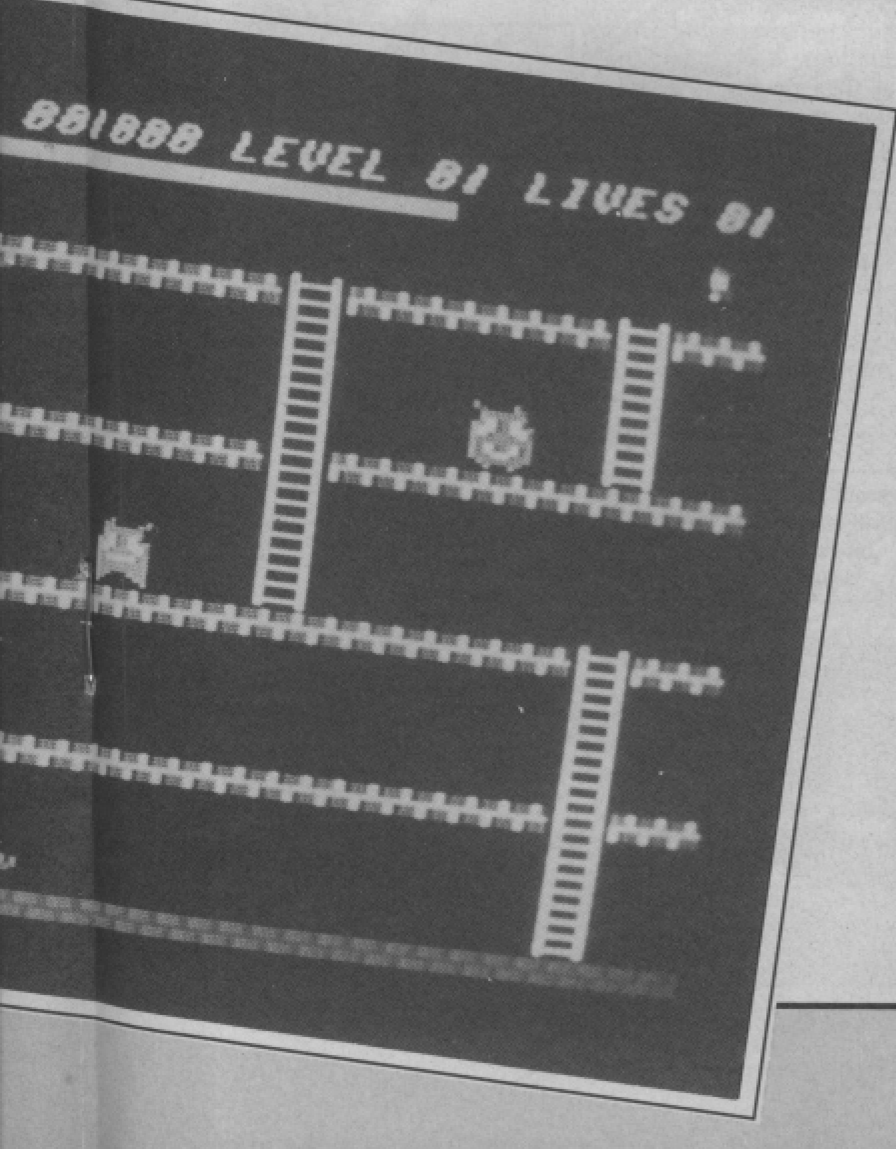
Graphics	★★★
Sound	★★
Toughness	★★
Staying Power	★★
Value	★★

You've just been robbed by a nasty. It's time to — Panik.





Bongo — typical platform fare with the novelty of a transporter and a redesigner.



BONGO
C16 and Plus/4
Anco
Price: £6.95/cass

Stuck for a game in the middle of the jungle, Anco had a bad idea and called it *Bongo*. Well the advert for Umbongo jungle juice goes something like that anyway. Actually though, the game comes from Germany and is programmed by one Udo Gertz, who sounds like an obscure elektromusician.

The cover alone was incentive enough to load up the game and investigate. It comes with a woman displaying a bit of leg alluringly to a few rats whilst balancing on a step ladder. It certainly conjured up all sorts of dirty ideas in my mind. Unfortunately the only truthful element of the packshot is the step ladder. It's a platform game.

Further investigation led me to wonder why the hell it was called *Bongo* at all. In the game your hero can use the words which are spelt out around the screen to jump around. The thing is, your hero has an enormous nose and so do the nasties. So why *Bongo?* I can only conclude that *Manilow* was too long for the C16's memory. Rumours of a 128 version called *Streisand* have been denied categorically.

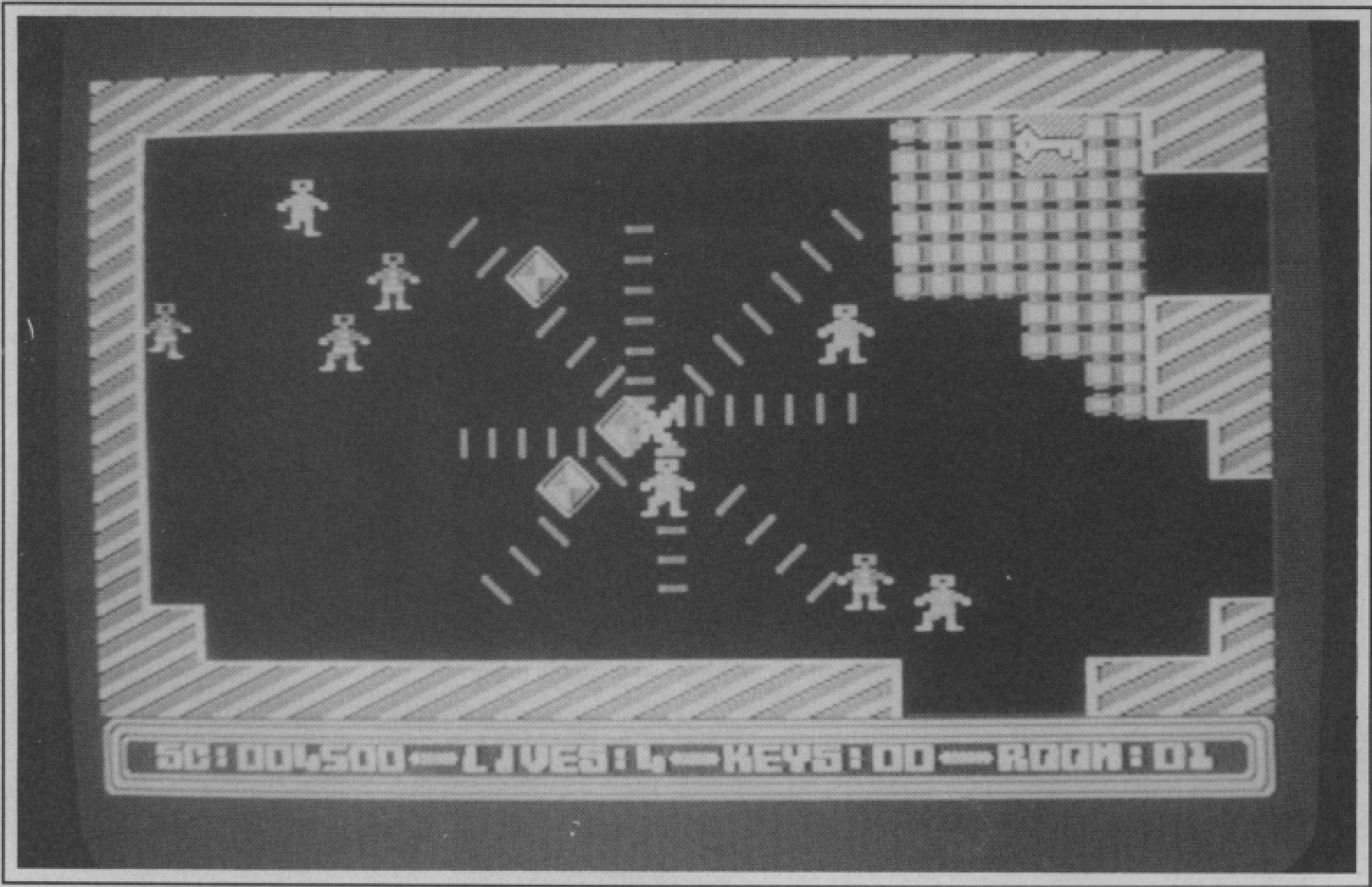
The woman is displayed somewhere top left and you have to reach her, first collecting some baubles on the way. The graphics are solid and chunky which is a real pity because I hate the sight of a pair of pixely knees.

Otherwise expect all the normal features of a platform game. The only novelty is that you can redesign the screen slightly to create a bit of variety when you've cracked the first layout.

The high point of the whole thing is the so-bad-it's-good rip off of Jan Hammer's duffo Miami Vice soundtrack. If you like platform games, fine. It left me cold.

Mike Pattenden

Graphics	★★★
Sound	★
Toughness	★★★
Staying Power	★
Value	★



Berks III — more Berks for your bucks, probably the best of the three.

BERKS TRILOGY
C16 and Plus/4
Price: £6.95/disk

The Berks games were first reviewed about a year ago in Commodore User when it wasn't trendy to review C16 games.

CRL were amongst the first to bring out half-decent games for the baby Commodore and now they have done it again by coming up with one of the first compilations.

Here is what our reviewer had to stay about Berks I, II and III when they were first launched.

Berks I. "The Berks — robots to you and me — are infesting your monitor screen. Destroy them using your 'terror tank'. You have a major advantage in that the Berks can't fire back, or perhaps they are just too stupid.

They do have their faithful drones for protection though — that follow you around the screen trying to get you — one touch and you're dead. You can stun them by firing at them, but only temporarily. If you can exterminate them all before running out of energy or losing all five lives you go to the next screen which is just that bit harder. If it's arcade action you're after you could do a lot worse than Berks."

Presentation	★★★
Skill level	★★★
Interest	★★★
Value	★★★

Berks II: "This is one of those games where you have to score points by painting blocks on a grid. Supercool bears, wearing shades and gold medallions try to thwart your efforts by repainting your work. Blast these with your "fast action, high velocity, belt-mounted laser cannons".

Talk about heavy on the arrangements. I must admit feeling a bit sorry for the supercool bears, up against that lot, with only a pair of Raybans to protect themselves.

The re-appearance of the homing drones from **Berks I** does little to enliven a basically lukewarm game."

Presentation	★★★
Skill level	★★
Interest	★★
Value	★★

Berks III. "Berks II is without doubt the best of the bunch.

You must penetrate the Berks inner sanctum and steal the source of their power — hoards of treasure.

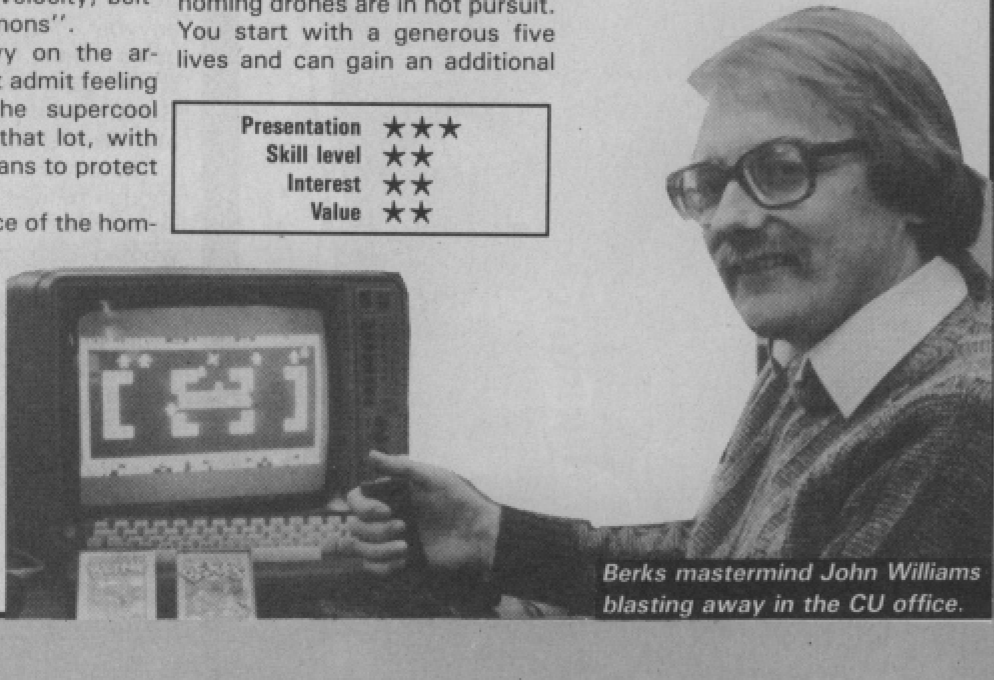
On the way keys must be collected from each room. A more difficult task than it sounds, as each key is surrounded by a barrier of protective blocks, through which a path must be blasted.

To add to your problems, hordes of Berks and their faithful homing drones are in hot pursuit. You start with a generous five lives and can gain an additional four by collecting the various hearts dotted around the place.

A game of frantic action and certainly the most fun I've had with my C16 so far".

Presentation	★★★
Skill level	★★
Interest	★★
Value	★★

Conclusion.
Two excellent games, and one so-so one, all round a must for C16 and Plus/4 games nuts.



Berks mastermind John Williams blasting away in the CU office.

WIN A TOMY VERBOT

As if Major Blink didn't have enough to worry about. With all those Berks rampaging around the circuits of his C16 causing all sorts of mayhem he also has a pesky Tomy Verbot adding to his aggravation.

In case you haven't heard of Verbots they are darned clever mini robots manufactured by the Zoids people — Tomy.

They will obey spoken commands such as turn left, right and reverse, even picking up and dropping objects — and all activated by your voice. Clever stuff, eh, but what has it got to do with Berks?

Well that's for you to decide and, if you can come up with a good story line we will reward your imagination with a Verbot of your very own.

CRL's resident artist, Ian Ellory, has drawn a cartoon strip featuring Major Blink, and the Verbot. All you have to do is write the captions to fill the speech bubbles.

The best entry will receive a Tomy Verbot and a copy of the Berks trilogy. There are also twenty-five runners-up prizes of the game itself.

Name ....

Address ....

....

....

Send your entry to:
Berks Competition, Commodore User, 30-32 Farringdon Lane, London EC1R 3AU.



The Next Big Thing

According to our Man in Manhattan, computer games are dying a death Stateside. So just what's replacing them as the next reason to use a computer?
Dan Gutman *reports.*



Hey, I went to a wild party last night. Paul J. was there. So were Cupcake, Don W. Boomer, Mandy D. and dozens of other people. The amazing thing was that Paul was in California at the time, Cupcake was in Florida, Boomer was in Boston, Mandy was in Chicago, and the rest were scattered all over the United States.

It was an "electronic party" on *CompuServe*, the largest of the information networks here. About a dozen of us were tapped into the same mainframe computer over our telephone lines. We could see each others' comments on our screens at the same time.

It was just like being at a real party, except that I didn't have to get dressed up. In fact, when you're partying from your computer, you don't even have to get dressed at *all*.

Is telecommunications very big over here? You bet, these electronic parties are becoming more and more popular as America is going, as they say, "on-line". About 25% of all computer owners in the US own modems, and we're quickly discovering the joys of "tapping in," "logging on," and turning in, usually late at night when the phone rates go down.

On this side of the Atlantic, a lot of people are saying that telecommunications is "The Next Big Thing". It may be the thing that finally gives the average guy on the street a reason to put a computer in his home.

Quantum Link

Commodore is the first hardware company to make the big push in this field. Recently they unveiled *QuantumLink*, an information network specifically for owners of the Commodore 64 and 128.

To show they mean business they're giving away free modems with every 128, plus a two month trial subscription to QuantumLink. They're aiming to sign up every one of the 3.5 million Commodore users in this country (there are six million worldwide).

Basically, QuantumLink is a full-service electronic network. For a flat fee of $10 a month, users can send and receive messages, read several electronic bulletin boards, play games, read the news, preview new programs from the major software companies, and access thousands of free "public domain" programs.

Q-Link, as it's called, has already thrown contests for its users and had them participate in public opinion polls. And if you've got a technical question about Commodore equipment, there's always an expert on hand to answer it for you — just like your Tommy's Tips. The system started in November, and at last count they already had 10,000 subscribers. Oh, one other feature on QuantumLink — my syndicated newspaper column is on it.

And there's more

QuantumLink is only one of hundreds of nets in the US. *CompuServe* claims more than 200,000 subscribers, while there are other nets that people are running out of their living rooms for a few computer owning friends.

Unlike QuantumLink, most of the nets charge by the minute. The longer you're on the line, the more you pay. It can get pretty expensive. An hour on CompuServe costs $6, and that's when the rates are low. Already there are cases of people becoming addicted and spend their entire life savings on telecommunications. We call them "infomaniacs".

I reckon telecommunications makes sense, maybe more sense than regular software. For one thing, software costs a lot of money and most of us can't afford to go out and buy a new program every week. When you go on-line, you only pay for *time*. More importantly, when you're communicating over a telephone line, it doesn't matter what type of computer you're using. Anything is compatible with anything else.

The sheer diversity of what you can do on-line is staggering. You can read the latest world news hot off the wire — even before it hits the newspaper or television news. Last year Grolier put their Academic American Encyclopaedia online. Instead of lugging around all 21 volumes, you can just tap into your computer when you want to look something up.

There are shopping networks that allow you to browse, select, purchase, and even pay for new products without leaving the house. Handicapped people are taking college courses and sending their homework electronically to their professors. Banks are setting up systems that allow people to pay their bills and move their money with their computers. The list is endless.

There are even a few services that bring together people to share their sex fantasies from the privacy of their keyboards. It's a candy store out there, and it won't even rot your teeth.

Electric Letters

I thinke one of the best uses of telecommunications is electronic mail (we call it "E-Mail"). If you're not familiar with it, electronic mail works like this — I log onto a network and type in a message to another subscriber to that network. The message is stored in a central computer. The next time that other person logs onto the system, he'll see this on his screen — "YOU HAVE ELECTRONIC MAIL WAITING". He taps a few keys and reads my message. If he wants to, he can then send *me* a message for the next time I log on. Assuming that we both check our mail frequently, E-mail is a lot faster and cheaper than the old paper and envelope kind of mail.

More than 200 million pieces of E-Mail were sent last year in this country, and they're predicting that 800 million will be sent by 1990. I wouldn't be at all surprised if electronic mail were to eventually make regular mail obsolete.

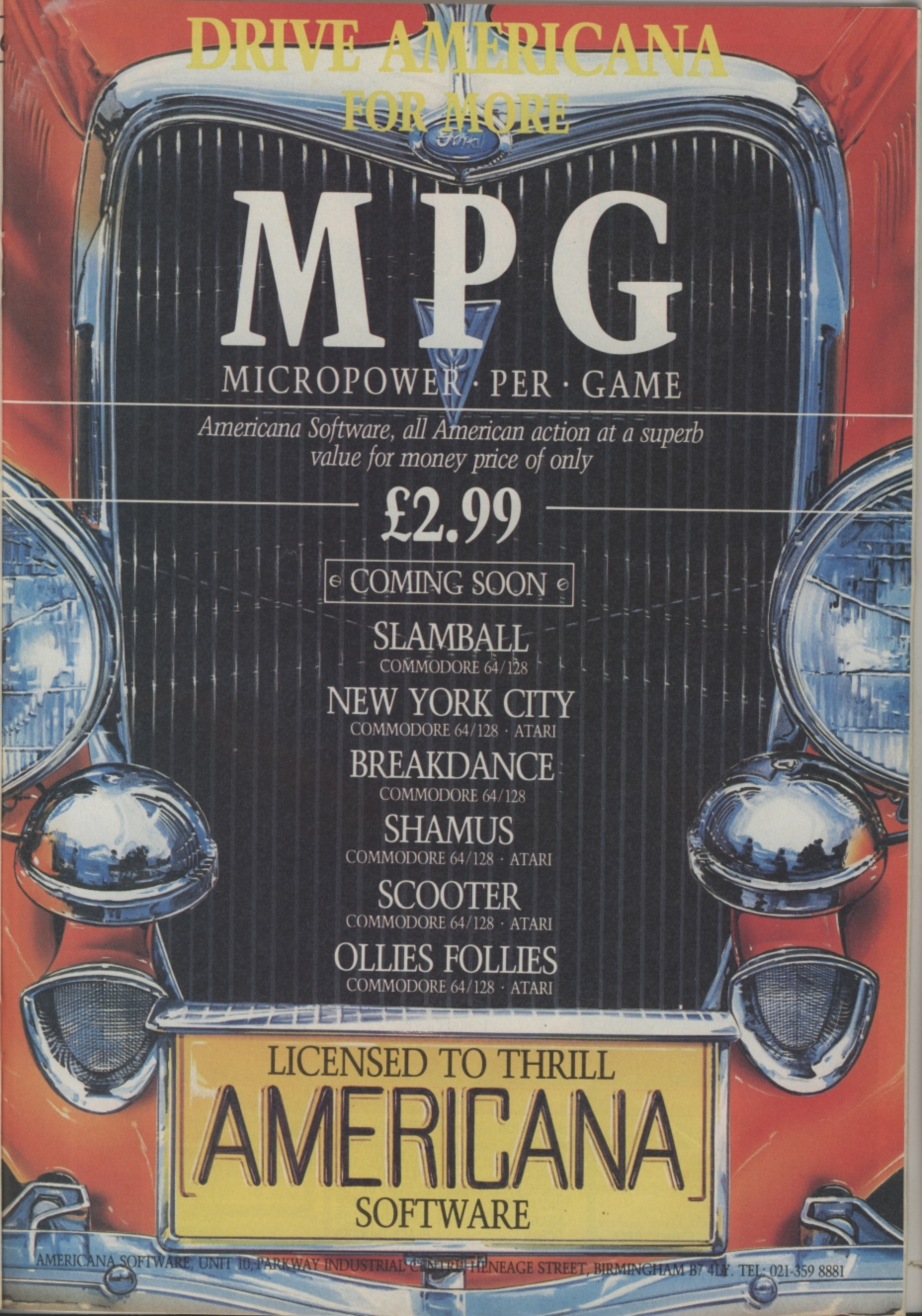
Of course, telecommunications has its down side. The technology is young and there are problems that have to be worked out. The biggest problem is security. There's a lot of data flying around over those phone lines, and some people are going to abuse it. People (mostly kids) are already tapping into computers and stealing money, falsifying records, and wiping out data — just for the fun of it.

Last year a group of New Jersey teenagers were arrested for using their home computers to actually shift the orbits of several communications satellites in space! Fun is fun, but there's such a thing as going too far.

More U.S. news

The recent disaster of the Space Shuttle Challenger has created a renewed interest in shuttle simulation programs over here. Two of them are on the market — *Project: Space Station* (HesWare, 390 Swife A., #14, San Francisco, California 94080) and *Shuttle Designer* (Simpletec, 1852 Century Place, Suite 130, Atlanta, Georgia 30345). Both programs are available for the Commodore 64 and involve building, staffing, equipping, and launching a space shuttle.

It looks to me like they're completely dumping the Commodore Plus/4 over here. You don't see it in the stores here — you see it advertised on sleazy late night television commercials. They're selling the thing for $99 now. That's about a third of the original cost — just about givaway prices. My guess is that they'll unload as many as they can and then discontinue the machine entirely. □


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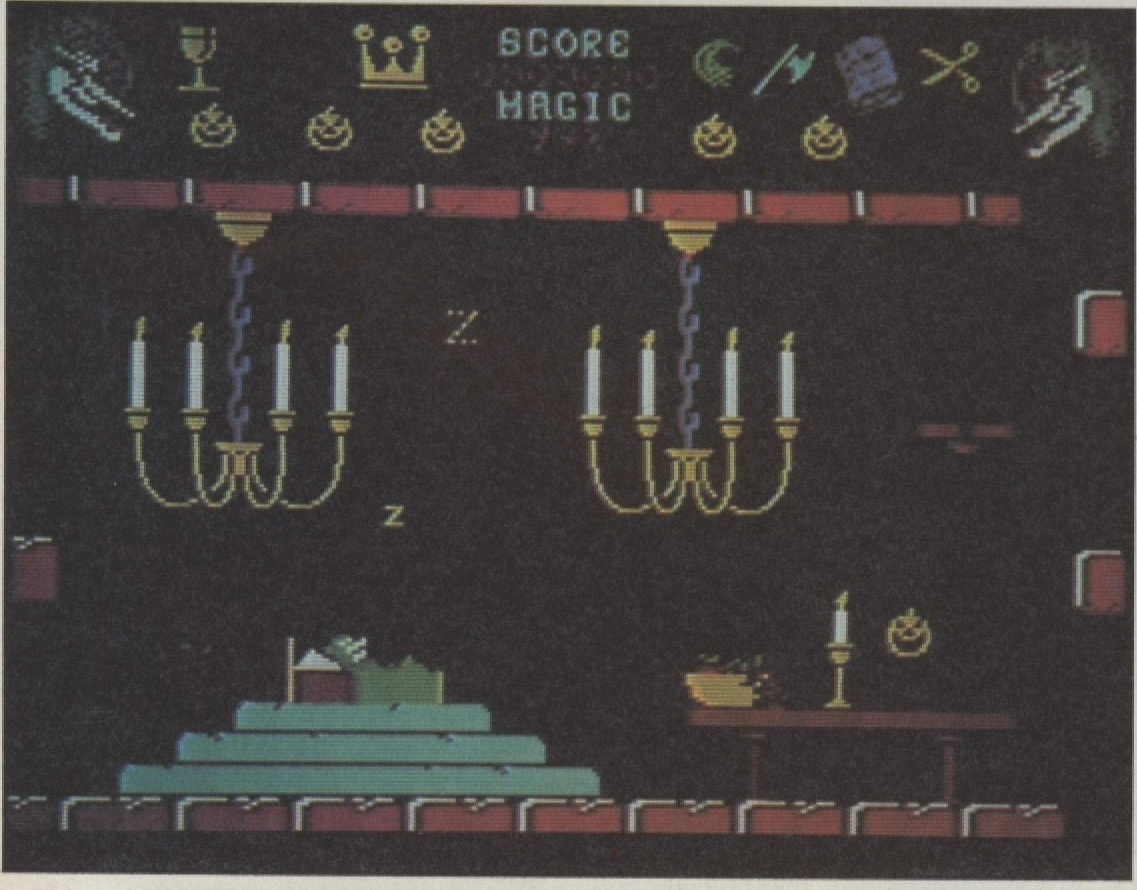
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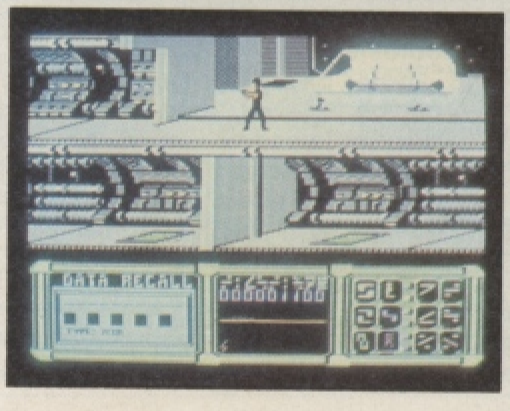
You'd better look good before you step out to buy next month's *Commodore User*. Go on, smarten yourself up — and don't forget your shades.

Why? Because we're getting a Summer facelift. It's goodbye to dullsville and hello to a sharper, brighter mag with more colour and — well, simply more style.

We've had to put our cover price up a few pennies, but we reckon you'll think it's worth it.







G-Force tackles Paper Boy, 'V', Starquake

We've got a players guide to *Paper Boy* next issue, plus *Cauldron II*, *Jet*, Sublogic's great flight sim and of course a final review of *Green Beret*. We've also got the long-awaited *V* and *Starquake*.

Programming

Get more from your Commodore by typing in one of our free programs. Plus, learn how to make your 64 do two things at the same time with the first of our two-parter on a smart technique called "interrupts".

Let's Get Serious

Make your 64 earn its keep — we check out the latest, budget priced database, home finance package, spreadsheet, and wordprocessor. Viza Star users — don't miss our exclusive "Get More From" feature in June.

C 16 Gamers

Ever heard of *Jet Set Willy* or *Manic Miner*? No? Where've you been for the last two years? These two 64 el classicos are now set for stardom on the 16. Will they get the G-Force vote?

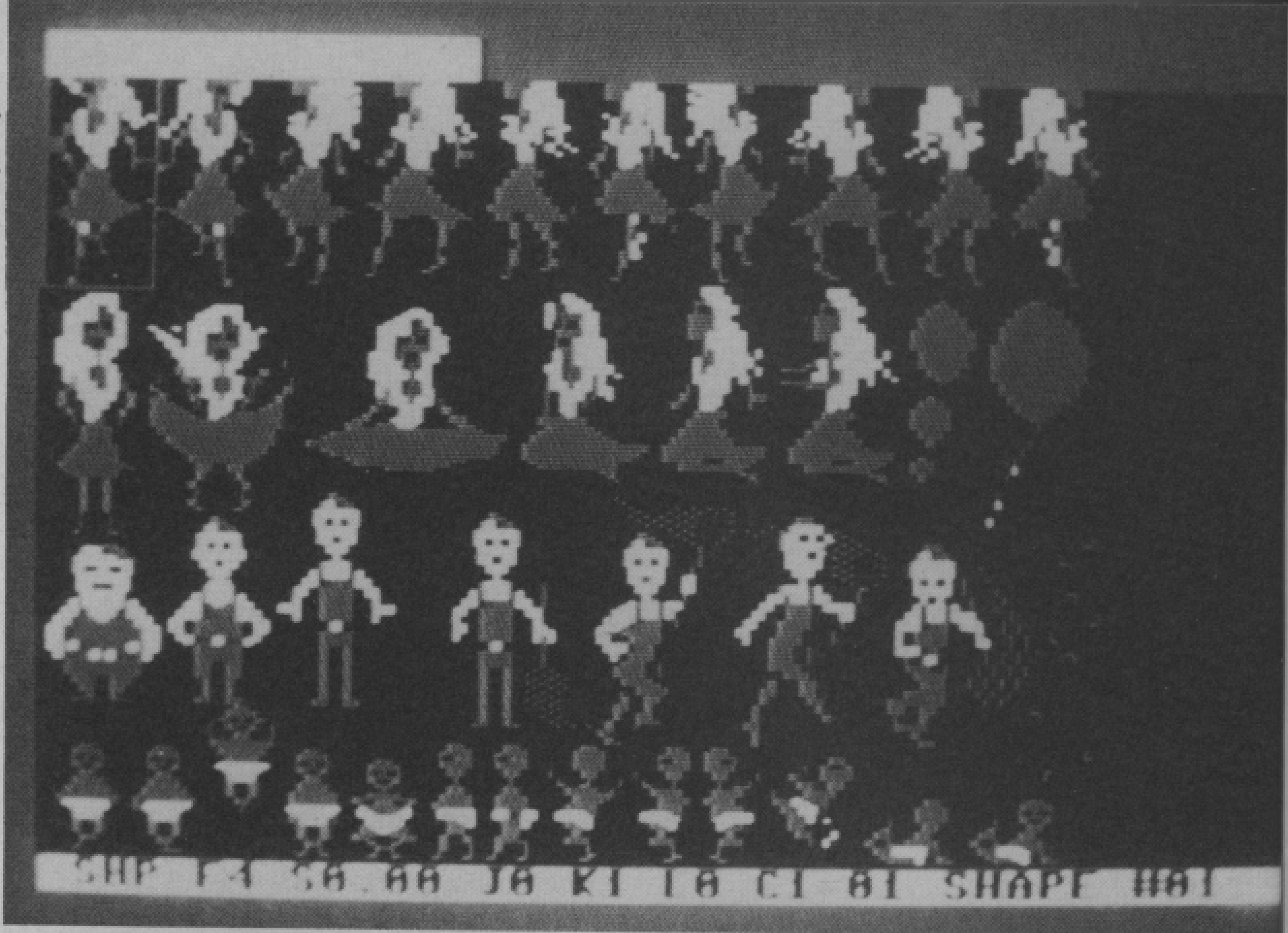
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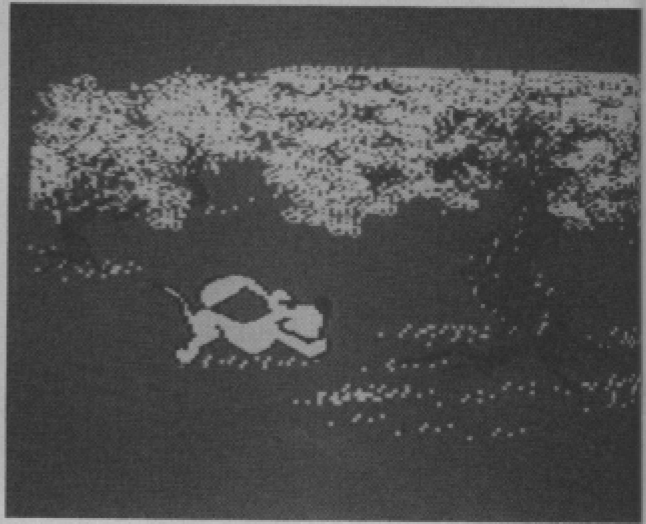
FREE — Play Better II

There's more for the money. Next month we're giving away another great supplement — Play Better II — featuring playing tips on the hottest games around like *Zoids*, *Uridium* and *Fairlight*.

A software package that let's you construct and animate pictures on your machine sounds impressive. Ariolasoft's Move Maker claims to be able to turn you into Cecil B de Mille, give you a library of ready-made movie shots and great soundtracks. We sent our own Barry Norman, **Daniel Gilbert** off to the cutting room to check the screenplay. Cue lights . . . action!







MOVIE MOGUL

Ariolasoft's Movie Maker reviewed

In light of the recent boom in 'aesthetic value' software, and following their "construction" theme, Ariolasoft have released Movie Maker which has to be one of the strangest ideas yet. In essence it resembles any games designer in that sprites, images, backgrounds and sound are manipulated, but at that point all similarities end. These facilities are in fact combined to enable creation of short (a few minutes or so) animation sequences.

The package consists of 2 disks — the first with the main program and demo 'movies' on alternate sides, the second a data disk of shapes, backgrounds, sound effects and tunes.

Load up

Having loaded the main program, the user is confronted with a four choise menu of Compose, Record, Smooth and Play. Each subsection is loaded individually from disc, theoretically giving a greater amount of memory and therefore detail to each section.

Compose is the main designing area of the package. The simplest application here is to use a rather poor graphics designer to draw backgrounds. This is rather slow, however, and lacks any of the subtleties of a modern utility — such as lines, circles, or box drawing.

The core of the unit, though, is the animator, which allows several shapes to be designed and then shown in a specified sequence within a display window.

For example, images of a man in four different positions may be played in sequence in the window to effect a man walking. The use of an efficient graphics duplicator means that a single shape can be designed and then copied repeatedly on the screen. Each copy is then slightly altered for different frames of animation and reasonably smooth action can be obtained.

Rates of replay, movement etc. can all be altered, and the animation display window may be moved around the screen in a sprite-like manner so the effect of a particular sequence can be experimented with before it is placed in a film.

Roll 'em

Your saved sequences are now utilised

in the *Record* mode of the program. Films are made in real-time, although they may be made at a slower rate than eventual playback speed, by moving your animations over the background as they play.

They are added to the film one at a time with all previous additions being played back simultaneously, so the action is gradually built up, much like filming one actor in a room at a time, repeating this, say, four times and finishing with a film of four people in a room.

This section of the package is the best imitation of film-making; the film may be played forwards or backwards at almost any rate, or frozen. Different animations can be assembled on the film independently, with a maximum of six different animated objects on screen at once. Six people, for example, could be on screen all moving and/or acting individually.

While still on Record mode, a rather restricted soundtrack may be added; although 4 voices are available, only 10 notes are available for each of 3 voices and 10 effects for the fourth.

Cut

The recorded film is now taken to the *Smooth* section (''now take your film to the Stage Manager in the cutting room'', the manual says) for the finishing touches to be added. A page of well-scrolled text may be placed at both the beginning and end of the film and the 'flickeriness' of the frames is removed at this stage, too.

The film is now saved as an independently-loading file and may be played back on the computer in its entirity. The manual suggests taping several films back-to-back using a video recorder to make a proper length film (!!)

Problems

The package, although technically sound, has a few drawbacks. Firstly, who is actually interested in making films such as these? The idea is quite 'cute' but since this is the 64 and not the Amiga, then the quality of the films is significantly less than ideal. The situation is certainly not helped by the underwhelming sound facilities.

Then there's the manual which appears, unfortunately, to have been prepared for American consumption; it takes the role of a tour guide taking you round a Hollywood film set. This has the effect of entangling the essential instructions in pages of garbage, which means that it may take you quite some days to actually understand how to use the program at all.

The actual length of time required to create a 300 frame original will probably be quite daunting to most people, too. Drawing a single animation in detail, such as the large dragon shown in one of the demos, would require not only a great deal of eye-strain, but also several hours hard work. Producing up to 6 of these and altering them 300 times each would be no mean feat, so making any reasonably large film would take weeks.

Verdict

So although the idea may have been a pleasant one, the reality is somewhat different. A great deal of time is needed to produce any sort of substantial film, and with all the technical constraints the quality is still more than likely to be unrepresentative of the effort involved.

***Movie Maker* does, however, add another dimension to the applications of the computer, involving the user's creativity rather than his reflexes, and salves the consciences of people who still claim to have bought the machine ''for educational purposes?''** □

- Movie Maker
- Ariolasoft
  68 Long Acre
  London
  WC2E 9JH
  01-836 3411
- Price: £16.95 (disk only)

COMPOSE YOURSELF



Commodore's Complete Music System reviewed

by Fred Reid

Commodore has decided that more and more people want to make music with their micro. So they've put together a complete package consisting of the Sound Expander, Sound Studio and add-on keyboard for the Commodore 64. Sounds good? The results sound amazing.

You remember we previewed both the *Sound Expander* and *Sound Studio* packages way back in January? Well, now they're complete and Commodore is offering them together with a five-octave keyboard in one of two 'complete' packages. The whole lot just mentioned costs £150, but you can get them complete with the Commodore 64 for £330. At present, the software is disk-based, but cassette versions are being prepared right now.

Sound Expander

The *Sound Expander* module slots into the cartridge port on your 64 or 128. It not only uses the same FM technology as many professional synthesizers costing over £500, but it plays no less than eight notes at the same time.

Forget the SID chip, this gadget is capable of producing sound realistic beyond your dreams.

Looking at if from the front (when plugged in), you'll find the output socket on the right side, and the keyboard socket on the left. On top of the module there's a second cartridge slot protected from dust and cuppasoup by a pair of hinged flaps. This slot can be used to connect your system up to other equipment via a suitable MIDI interface.

Also included in the package is a brief but comprehensive instruction manual, a set of chord stickers, and a tutor booklet introducing the keyboard.

With the module duly plugged in and connected (with the leads provided) to your TV, monitor or hi-fi, and the keyboard plugged into its socket, you can safely power-up and load the software. Sound Expander has been designed with the complete amateur in mind, and no previous musical knowledge is needed (I know you've heard it all before, but this time I mean it) to produce spectacular (Richard Clayderman watch out) results!

Using Sound Expander

The opening screen shows a small piece of musical stave, and pressing notes on the keyboard will show the notation on the stave, and play the note (at this point, a slinky vibraphone sound). Up to eight notes can be played at a time, sufficient for most purposes.

Across the top of the screen is a menu strip. Using f1 and f3, you can highlight each option, and pressing f7 operates the pull-down menu (a standard maintained throughout the system).

The first of these is the set-up menu, allowing you to choose the basic operating mode. When 'normal' mode is selected, you can play the chosen sound over the entire keyboard.

'One finger chord' mode is just that. Pressing a key will play it's corresponding major chord, holding a key to the left as well will play a minor chord.

When 'fingered chord' is selected, a 3 or 4 note chord played on the lower half of the keyboard will produce an inversion of the chord, plus a bass note. The 'memory' function will hold the chord played after you release the notes, until you play another chord or press the space bar.

The 'split keyboard' and 'set split' op-

Sound Expander module plugs into cartridge port. There's also a phono socket for connection to an amplifier.



tions allow you to play two different sounds at once. One end of the keyboard plays say a bass sound, while the other end plays something else. The point on the keyboard at which the change occurs can be set to any note you like.

Other options on this menu let you choose the border colour, display sharps or flats, and transpose the pitch of the keyboard up and down.

The 'Synth' menu is where you go to change the sounds. A set of 32 sounds is located with the main program, and a further set of sounds can be loaded from disc using the disc menu. The sounds included cover a wide range of orchestral in-



struments: string sections, flutes, guitars, brass, piano, as well as a number of purely electronic sounds. And the sounds have been carefully programmed to simulate the 'real thing'. You only have to close your eyes to appreciate the amount of time and trouble that has gone into these sound presets.

Once you have selected your sound(s), there is a little room for modification, the 'octave' function will move the pitch up or down in octaves while using the '/' and '.' keys will make the sound brighter or mellower, but the actual effect depends a lot on the sound you are using. Using the same keys shifted, you can tune the synth up or down to match other instruments (absolutely essential).

Rhythm Menu

The rhythm menu offers a selection of twelve popular rhythms covering pop, rock, disco and latin-american styles, using an extensive range of appropriate percussive sounds. The tempo can be adjusted from this menu through a more than adequate range, and you can choose 'Intro' and 'Outro' mode (outro being the opposite of intro). These fun items produce a pre-programmed introduction, 'break', or ending for you music. Pressing cursor up/down or cursor left/right initiates these. A different intro and outro are programmed for each rhythm selected, offering lots of variety.

The next menu is the riff machine is a collection of short arrangements (twelve for every rhythm) that can be used as a backing track for your own music. Each of the riffs are assigned to a key on the 64 or the full size keyboard, and a sequence of up to 256 riffs can be programmed before you start playing. Playing a note starts the sequence, and you can use intro's and outro's as well!

The final menu is for disc operations, you can load an alternate sound set from the Sound Expander disc, as well as a couple of beautifully produced demonstration pieces.

The Keyboard

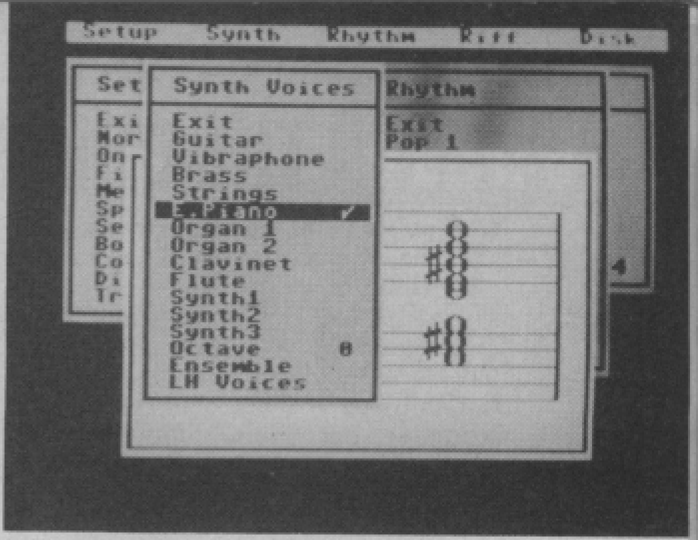
This keyboard is definitely no toy. I was quite surprised at the quality feel and gently rounded keys. It's just under three feet long and fashioned from good old black plastic. Connection is by a three foot length of ribbon cable terminated with a miniature plug that mates with a socket on the left-hand side of the expander. This is perhaps a little thoughtless, the ribbon cable is fragile, exposed and a little on the short side. Aside from this trifling detail, I can find nothing to diminish it's value within the package.

Sound Studio

The *Sound Studio* package runs independently of the Sound Expander module, and offers a full range of composing and sound creating facilities using the Commodore's SID chip. Sadly, you won't be able to use the add-on keyboard here.

The program consists of two parts: the Sound Editor and the Music Editor (sequencer). Once either part has been loaded, the user can flip from one to the other. Whichever part you start with, you get sixty preset sounds to use, with another sixty stored on the disk.

The main sound editor panel is laid out in boxes, with all relevant functions grouped together. A large purple arrow operated by joystick or cursor keys points to each function in turn for editing, and any of the sixty presets can be called up, edited and stored back in memory. Whole sound 'libraries' can be saved to disk for further editing, or for use while composing or performing.



Sound Expander's software uses easy to control pop-up menus.

Most of the values displayed on the editor screen are represented by graphic sliders that are adjusted with the cursor keys while you are playing.

A second editing screen can be called up, and deals specifically with SID's filters. All in all, the amount of control you have is quite impressive, and you can see at a glance exactly what's going on inside SID.

Selecting the Music Editor (takes about two minutes from disk), presents you with a system of pop-up menus similar to those of the Sound Expander software. No auto rhythms are available, but a metronome is provided in the top left of the screen to help you keep time.

Recording, both in real time and step time is accomplished in true multi-track style. In other words, you can record one track while listening back to a previously recorded track. Three tracks are available normally, but if you are fortunate enough to own a MIDI interface and synth, up to six tracks can be programmed.

Tracks entered in real time can be edited from the step time page, the note information is presented in the form of a downward scroll within a window, and notes can be entered or edited simply and without fuss.

The Verdict

Sound Expander is a revolutionary package that offers not only superb sound quality but remarkably easy to use software and a well built 8-note polyphonic keyboard. What more could you want for £150.

It's unfortunate that the Sound Studio software is totally incompatible with the rest of the system — so the package isn't quite as 'complete' as you would imagine. Still, rumour has it that additional software may soon be available for Sound Expander, which may even make Sound Studio obsolete. Despite these minor criticisms, the Complete Music System is a real winner. □

- Complete Music System
- Commodore UK
  1 Hunters Road,
  Weldon, Corby
  Northants.
  Tel: 0536 205555
- Price: £150 (without 64)
  £330 (with 64)

WIN THE COMMODORE COMPLETE MUSIC SYSTEM

You've read our rave review of the Complete Music System, now's your chance to actually win one for yourself, in our great Synth Competition.

Remember, the Complete Music System gives you not only the Sound Expander, but Sound Studio and a superb five-octave keyboard. You'd pay £150 for that lot, but we've got one to offer our lucky winner.

All you have to do is answer the three simple questions, and the tie-breaker, on the coupon below (or a copy of it) and send it to us not later than 15th May.



The Questions

1. Who is generally recognised as the inventor of the synthesiser?
   - **a. Robert Moog**
   - **b. Isuzo Yamaha**
   - **c. Acker Bilk**

2. Which synth duo had a hit with the soul classic, Tainted Love?
   - **a. Sigue Sigue Sputnik**
   - **b. Soft Cell**
   - **c. Yazoo**

3. Rob Hubbard wrote the theme tune to which one of these games?
   - **a. Commando**
   - **b. The Force**
   - **c. Solo Flight**

The answers are:

A .... B .... C ....

The Tie-breaker: Which musician do you think could make best use of the Complete Music System, and why?

..

..

Name ....

Address ....

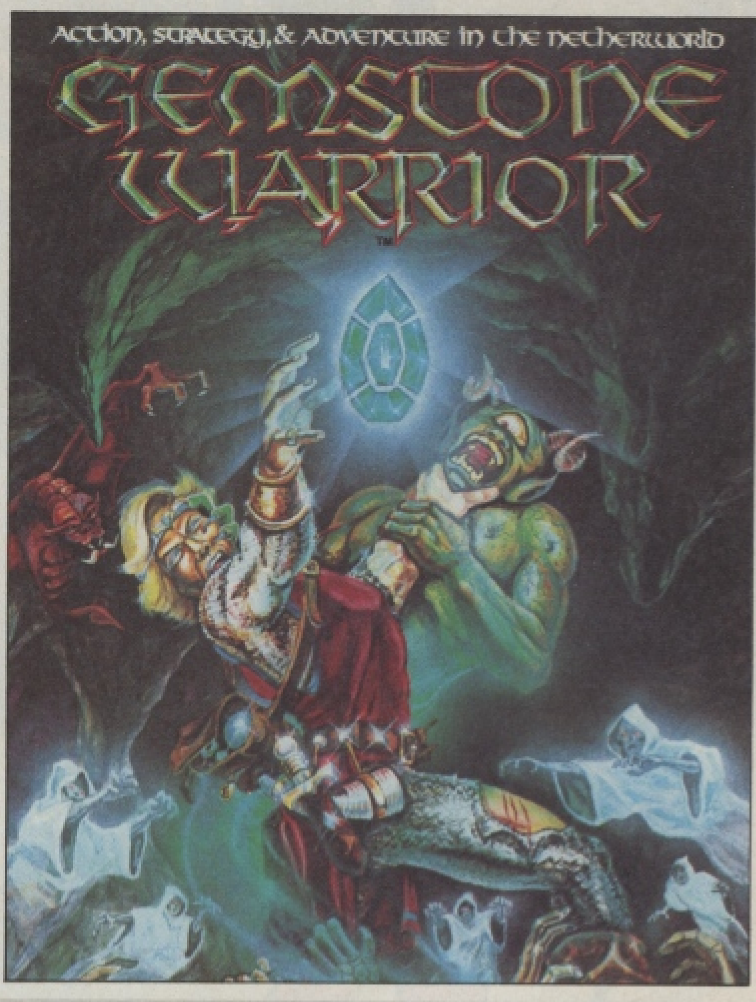
Mail this coupon to: Synth Competition, Commodore User, Priory Court, 30-32 Farringdon Lane, London EC1R 3AV.

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QUESTRON

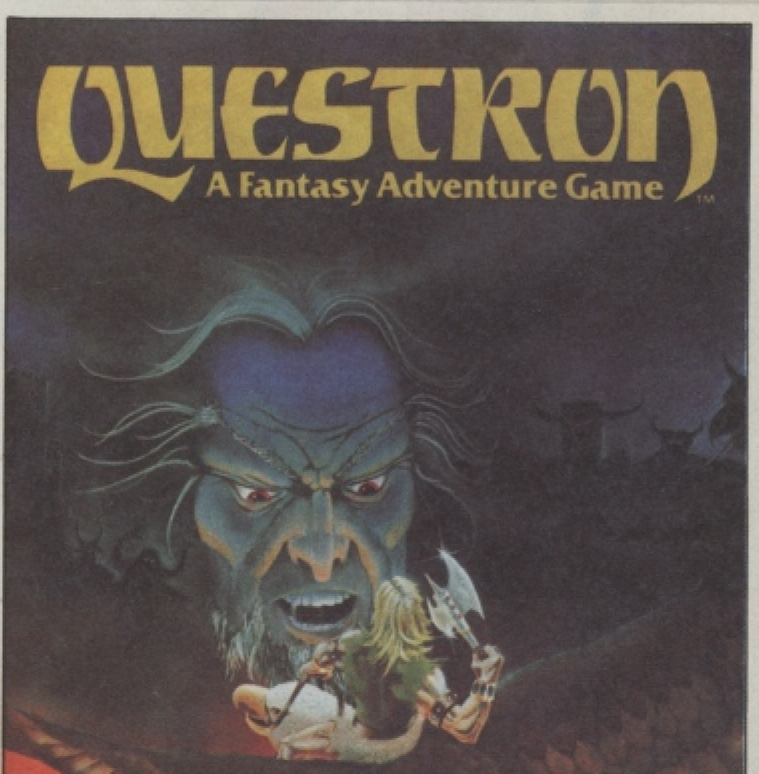
These are dire times for the Questron Empire. Mantor, a renegade sorcerer, has possession of the Great Book of Evil Magic and is using the despotic power it bestows upon him to plague the land with hideous monsters. The Kings once proud army has been decimated by these deadly foes; and thus he has put his trust in you, a humble serf, to use your cunning and strength to steal the Magic Book and render Mantor powerless.

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Putting pen to pixel

Wouldn't you rather use a pen to draw with your 64 than a joystick? Well you can — no, not with a ballpoint but a lightpen. ***Fred Reid*** *checks out the two latest pens.*

DART LIGHT PEN

This is the latest lightpen system to hit the 64, and offers a few innovations over it's competitors. The pen itself is rather novel, instead of a light-sensitive diode in the tip of the pen, you get a bundle of fibre-optics!

The software also offers a few innovations, like icon-driven menus and polygons.

The Lightpen

The pen is extremely light despite being a little bulky, although the tip is fairly fine. Because of the fibre-optic sensor in the tip, there is no need for a conventional 'wire' cable connecting the pen to the joystick plug, instead you get a thin length of fibre-optic cable that is lighter and more flexible.

The Software

The Dartdraw software on cassette contains three programs: the main drawing program, a utility to load a saved screen back into the computer independently of the main program, or dump it on your printer (check with your retailer on compatibility) and a tape-to-disk utility.

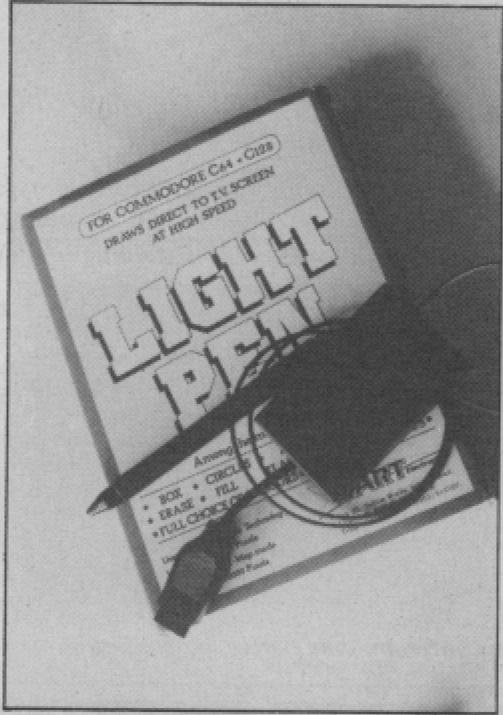
The drawing software is very easy to use, all the menus and functions are icon-driven (icons are symbols that graphically show the functions they control). All you do is touch the pen to the icon, and that function or menu is called. The obvious advantage here is the speed at which you can flip through the various options.

The first set of icons cover freehand drawing, lines, polygons and boxes, while on the next menu you will find icons for copying, filling and text modes. A third menu offers Load and Save options not to mention the all-important 'Trash Can' (beware, there's no going back from this, and it is fairly easy to select it accidentally).

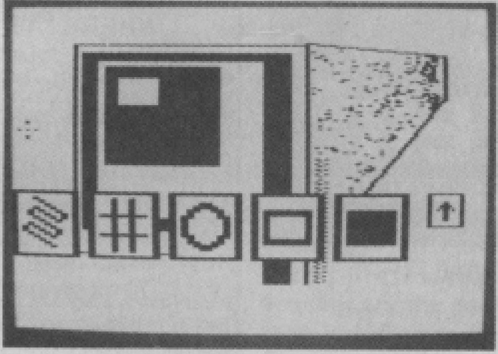
Once you are in a drawing mode, you can enter the colour menu. Dartdraw only allows you to draw with three colours at a time, to avoid the mess you sometimes get when areas of different colour meet.

However, you can choose the three colours on your 'pallete' from any of the sixteen standard Commodore colours. Although this system is limiting, it does mean you can change the entire colour scheme very easily.

One of the exciting features of Dartdraw is it's ability to draw pentagons and hexagons or indeed any geometric figure of up



Dart lightpen features fibre optics.



. . . and icon-driven graphics software.

to eight sides! The same menu option also allows you to place circles and ellipses on the screen.

Dartdraw supports loading and saving of your drawings onto tape or disk by providing a separate utility on the tape. It also claims to let you dump screens to a printer but doesn't say which ones are provided for. We tried it with a Commodore printer — successfully.

Verdict

To sum up, while the software seems very easy to use, it lacks the degree of sophistication one would expect from a twenty-five quid package. Only one thickness of line is offered for drawing, the 'Fill' function only fills with solid colour, and an 'oops' function would have been nice.

On the plus side, though, Dartdraw is very easy to use (the manual is well layed out and shows all the icons) and the icons certainly make the software more friendly. The pen is very easy to use, it's light, sensitive and the cable doesn't get in the way, although I can't help thinking it's rather fragile.

TROJAN LIGHT PEN

The Trojan light pen was probably one of the first available for the 64 and has stood the test of time in a fast-moving industry. The pen itself hasn't changed much over the years, but the software has been considerably improved.

The complete package is available together with a comprehensive (if brief) manual, for a shade under £20. Disk users can easily transfer the software to disk, or send an extra £3.50 to Trojan for a copy on disk.

The Lightpen

The pen is only slightly larger than the average ballpoint, and looks and feels like a cheap giveaway. It's obligatory connecting cable is just over three feet long, ter-

Lightpens were pretty popular when the Commodore 64 first came out, and then faded away without trace. Either the pens weren't sensitive enough or the drawing software was lousy.

Like those early pens, the latest arrivals come complete with drawing software, an activity lightpens are particularly good at. And that's simply because you're actually holding a pen to draw, admittedly not onto paper but straight onto the screen.

That's very useful for freehand drawing or writing. Using a joystick, you're restricted to movement in one of eight directions. Of course, what you can achieve with lightpens depends on the software that comes with it.

The Dart lightpen may have flashier 'icon-driven' software but the Trojan pen just steals it on superior and more wide-ranging software.

minated with the standard joystick type plug. The cable is quite heavy, and tends to weight the pen down a little, but it's nothing you can't get used to.

The Software

The software is fancifully called *Cadmaster* (you know, CAD as in 'Computer Aided Design), and loads from cassette in about two and a half minutes. After calibrating your pen against a white spot on the screen, you get to the main menu.

From this, you can select (using the lightpen, naturally) any of the functions displayed. For example: choose one of the 16 colours and select the Draw mode. The menu vanishes, leaving you with a plain white screen, with a cursor that follows the tip of your pen.

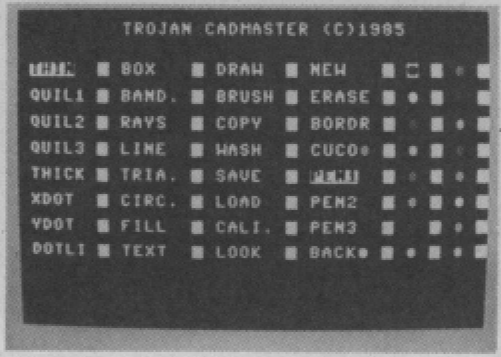
Holding down the 'CTRL' key turns the 'ink' on and draws a line of the size and colour selected. Pressing 'O' always returns you to the menu.

Several types of line are available, including thick 'Quill', dotted and even brush or spray effects are possible. Geometric shapes such as rectangles, triangles and circles are well catered for, and can be filled with a solid colour, or one of Cadmaster's prepared textures such as brickwork, mesh, chessboard, waves and more.

Selecting the Text option allows you to type text onto the hi-res screen in a variety of different styles, and the Erase function will always remove the last thing you drew from the screen. To erase selected areas, you use the background colour as the ink, and normal Draw or Brush modes.



Trojan lightpen — an old stalwart.



Its software was better, by a whisker.

The Copy function is useful for duplicating a part of a drawing on another part of the screen, and you can even enlarge the size of the copy! Load and Save functions allow you to store your masterpiece either on cassette or disk for later perusal.

Although you can save and reload your designs from tape or disk, the package has no printer dump facility. By the way, you don't need to have Cadmaster in memory to load and view your creations.

Verdict

Overall, the pen is sensitive, although it dislikes drawing over dark areas of the screen (naturally enough). The software isn't exactly elegant, but it functions extremely well (I particularly like the brush function).

You're still restricted by the limitations of the 64's graphics, but you should find it easy to produce quality graphics for your games or whatever. □

- Trojan Lightpen
  Commodore 64/128
- Price: £19.95 (cass)
- Tel. 0792 205491

- Dart Lightpen
  Commodore 64/128
- Price: £24.95 (cass/disk)
- Tel. 0502 513707

-Uncle Jim's-

COMMODORE CLUB



Uncle Jim wants you to know he's just mad about computers; he's a brilliant gamer, a canny programmer, a technobuff and an uncle to Trevor and Denise. He's just bursting to share his passion with you every month — on his very own page.

Ronnie my postman has just delivered me a remarkable and revolutionary new Commodore 64 add-on. Ronnie knows nothing about computers but stayed while I unpacked it so I could pay the excess stamps.

It's called SQUID and it looks so marvellous, I've stopped work on my Squeezy bottle joystick, my bee-hive management program and explaining to young Trevor what 'press play on tape' means, to bring you this exclusive review.

SQUID stands for Super Quick User Interface Device. Although my test system was a pre-production model, and nothing really worked on it, I could easily appreciate that it could revolutionise personal computing as we know it today — I wish I could say that about my joystick.

SQUID is housed in an aluminum case, no larger than an average shoe box, and finished in attractive matt black industrial paint. Initially, I was rather stumped over how to attach it to my 64, as there was no instruction manual with it. This of course was because my SQUID was a review copy; it is a long-established tradition that review copies of all hardware and software must be defective and minus instructions.

File handling

So I rang the makers Sharksoft, and a very helpful lady told me that Gareth was at school at the moment, but she was his mother and could she help? I explained my difficulty, and she told me which bits to file off the casing so that the SQUID would fit my 64's cartridge port.

Having fitted the SQUID, I powered the computer up and was faced with a screenful of garbage. Another call to Gareth's mother revealed that this was in fact a scrambled password copyright protector. The only way to get into the system was to view the screen through a pair of X-ray spectacles (not supplied), which would render the password legible so it could then be keyed in. However, if I promised not to let it generally be known, she would tell me the top-secret password override code ("GARETH").

> It's called SQUID and it looks so marvellous, I've stopped work on my Squeezy bottle joystick.

SQUID is a window/icon/mouse user-friendly front end, and will appeal to anybody wanting to make their Commodore 64 look as if it is really something rather more expensive.

When you first fire the system up, you are confronted by a blank, rectangular area representing a desktop. Around the desk are various "icons", pictures resembling pieces of office furniture which reflect different parts of the computer.

For example, a waste paper basket is used to represent the disk filing system, a typewriter represents the printer, and a filing cabinet indicates the place where the instant coffee and sugar is kept.

I noticed that there was no refrigerator, but Gareth's mother assured me that this would be available from version 1.79A onwards, and existing users would be issued with a free upgrade if they sent a solicitor's letter and a stamped addressed Jiffy Bag.

To select a particular function, you use the arrow keys to move a little pointing finger around the screen. Sometimes the finger appears with an Elastoplast, probably after it got caught in the filing cabinet.

What's the point

As an alternative to the keyboard, it is possible to control the pointer with a form of "mouse". According to Gareth's mum, the SQUID version is not so much a mouse but a radio-controlled gerbil. This neatly overcomes the problem of attaching the mouse to the main unit with a limited length of cable, and allows it to rove over a much larger area.

Indeed, gerbil-control permits operation of the computer from a different part of the house. Simply mark out a scaled-up desktop on the living room carpet with chalk, and you can manouevre your gerbil while watching Match of the Day on the telly. Unfortunately, I couldn't try the gerbil for myself as it is still under development, but it should be ready for shipment within 28 days of any date you fancy.

The "Electronic Office" concept is further enhanced by the desktop itself. There is an "In" tray, an "Out" tray, and a "Pending" tray. Various documents, represented by little squiggles, can be shuffled back and forth from one tray to another, just like in a real office. If desired, an "Auto Shuffle" option can be selected, which performs a random re-shuffle every two minutes. Also on the desk is a telephone which rings occassionally, although it always stopped as I was moving the pointer onto the receiver.

Window pain

SQUID's multi-windowing facility is one of the most advanced I have seen on any micro. Up to 256 windows can be opened at any one time, and each can be zoomed or shrunk at the touch of a single key, although I never discovered which one.

Each window can be designated as single or double glazed, and there is a choice of anodised aluminium or uPVC frames. A "Rubber Banding" feature gives you a handy place to store your rubber bands.

SQUID also has pull-down menus which work rather like roller blinds; you can pull them down, but they refuse to go up again. These will eventually be used for help screens, although on my copy they just displayed the message: "See Instruction Manual."

Gareth's mum says it is absolutely essential that you send off for your SQUID at once, enclosing a cheque or postal order for £299.00 including VAT. But she asked us not to publish the phone number as Gareth had a lot of homework that night.

> SQUID also has pull-down menus which work rather like roller blinds; you can pull them down but they refuse to go up again.

Club members will be delighted to hear that I've negotiated a deal with Gareth (his mum, actually) whereby you can buy SQUID for just £3.50 by sending Gareth your entire stamp collection — he's particularly interested in the British Mombumbo Islands.

● *Don't forget, you can catch Uncle Jim and his Junior Gnome Ranger club on the Micro Gnome bulletin board.*

HAPPY HACKER

There's a lot more you can do with your Commodore 64 and modem than merely dialling up the likes of Compunet and Micronet. Why not try calling another modem user directly? What? Yes, it's called user-to-user communications. It's useful and it can be good fun. Ken McMahon explains how it's done.

Your modem, even the Commodore one, is a versatile piece of equipment and is capable of doing a number of tasks in addition to that for which it was primarily intended.

One of the most useful, is *user to user communications,* commonly referred to as U-U. As the name implies, this involves communicating with your 64 directly to another 64 owner without a database such as Micronet or Compunet acting as an intermediary. To set up U-U comms you'll need three things, apart from your modem.

● ***Some Software*** is required which enables the two modems at either end of the line to transmit and receive data in a suitable format.

Y2 Computing have written a program which does the job and this was available free on Compunet for some time. If you missed out on it you can obtain it direct from the company.

The version available on Compunet (V1) was found to be unreliable over long distances due to the poor quality of BT's lines. So if you are planning on inter city comms it might be worthwhile getting the latest version (V1.3) from Y2 anyhow.

● ***Two-way telephone adaptor:*** This allows you to connect your telephone and modem to the phone socket at the same time. The're available from most telephone accessory shops and cost about £5.

● ***Someone to communicate with:*** This should be the least of your problems. A quick flit around Compunet or Micronet will provide you with enough U-U contacts to keep you busy at least until the next phonebill arrives.

Once you are on line, what you do is largely up to yourself and your remote correspondent. The Y2 software provides two options.

The screen is divided into three windows, two of which are used for on-line chat. Anything typed in at your end appears both on your screen and on the other person's. The same applies to anything they type. This is of course, fairly useless on its own as you could do the same thing far more efficiently by picking up the phone and chatting verbally.

The real power of the software is in it's ability to transfer files. Either sequential or program files can be sent down the line. File transfer is disc to disc, so no time is wasted storing the data in RAM and files of any length can be transmitted. The chat facility can be used during file transfer to make sure that everything is going according to plan.

During a late night session with *Commodore User*'s Fred Reid we managed to send each other about 100K of data in half an hour or so. That consisted of Basic and machine-code programs, and Superscript files. The programs ran and the only mistakes in the text files were Fred's lousy typing, so it seems the possibility of corruption is remote.

If you own a Commodore or another standard modem, the extra outlay involved in setting up U-U is fairly minimal. The benefits in terms of swapped programs and information and the fun of being involved in something different make it well worthwhile.



● ***Gnome stays home:*** Readers of last month's Happy Hacker will recall the trepidation surrounding the future of one of the country's best loved 'independent' bulletin boards 'The Gnome At Home'. The good news is that Gnomic Sysop Glyn Phillips has received a positive response to his request for subscriptions and The Gnome's continued existence seems assured.

Non subscribers will still get a look in, but those paying the £4.50 quarterly registration fee will have priority.

Paying customers will be issued with a personal ID and password and will have access to their own private mailbox. There will be the opportunity to set up your own BB similar to those on Micronet's Gallery pages. One of the first of these will be a section devoted exclusively to the 64 and 128, so, if you haven't already done so, page The Gnome At Home on 01-888 8894.

● ***More Free MUD:*** There can't be many modemised Commodore users left who haven't played MUD in one form or another. The latest pastime of this nocturnal elite is the pursuit of the elusive free game of MUD.

There are currently three MUDs running in different parts of the country. Compunet's, for which the (reduced) charge is £1.75 per hour, Essex University's, which is free if you can get through (not easy), and BT's MUD II.

Until recently, MUD II was beset by so many problems that BT didn't have the heart to debit player's accounts. Most of the bugs have now been eradicated and players are now being charged a reduced rate for each 30 minute period on the system.

It didn't take long however, for a few naughty novices to discover that if they logged off a couple of minutes before their half hour was up they didn't get charged. It won't be very long before MUSE, the owners of MUD II, put this little anomaly right. In the meantime they are appealing to the honest, trustworthy nature of subscribers to do the decent thing.

In the meantime, if you don't have the readies to fork out £20 for a MUD pack, you can obtain a free ten minute sampler. If you are using the Commodore modem you will need Y2's Terminal software. Phone 01-998 8899, for those with PSS the number is A21880100300. In response to USERNAME type MUDGUEST, the password is PROSPECT and select option 2 from the menu.

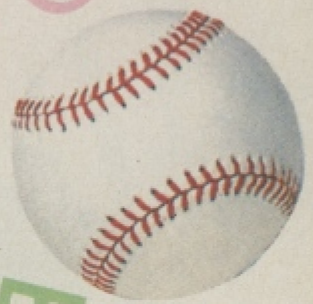
● ***Less than a Miracle:*** Those of you who were tempted into buying Miracle Technology's 64 Multimodem may have felt a little let down by the company's claim that it was possible to set up your own BB with the modem. What is actually provided amounts to little more than a text version of an answering machine. Author's of the modem's software — you guessed it — Y2 Computing have just completed an update (C2) which includes the promised BB software. Existing owners of the modem can obtain a free upgrade from the manufacturers. □

Y2 Computing Ltd., Tarmay House, 146 St Albans Road, Watford, Herts.
0923 50161

Miracle Technology (UK) Ltd., St Peters Street, Ipswich IP1 1XB.
0473 216141

The Gnome At Home, 3 Parkview Gardens, White Hart Lane, Wood Green, London N22 5SH
01-888 8894 01-888 8815 (voice)

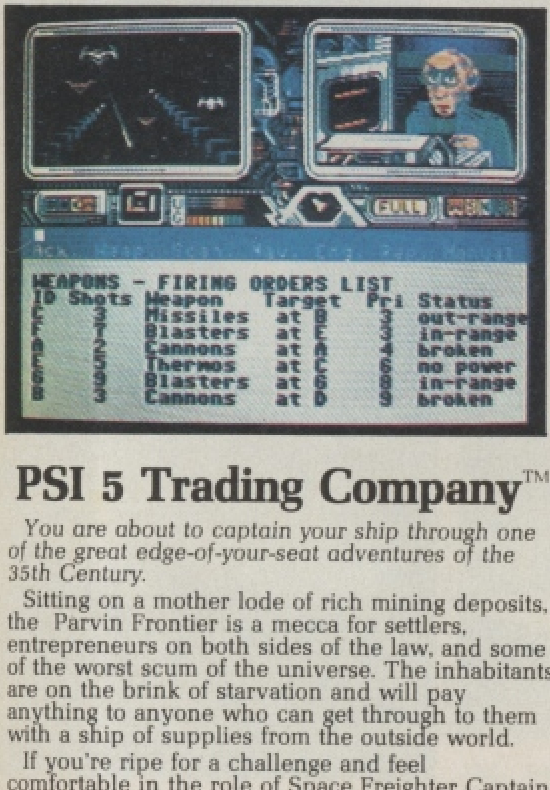
FANCY CHANCING YOUR ARM AT BASEBALL



OR MAYBE YOU WANT TO BE A HERO OF THE OLD WEST



OR WHAT ABOUT AN ENTREPRENEUR OF THE 35th CENTURY



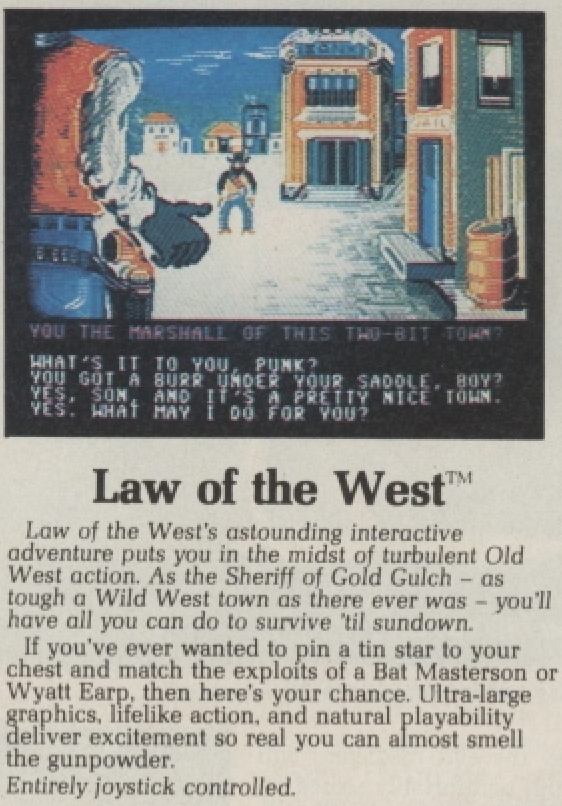
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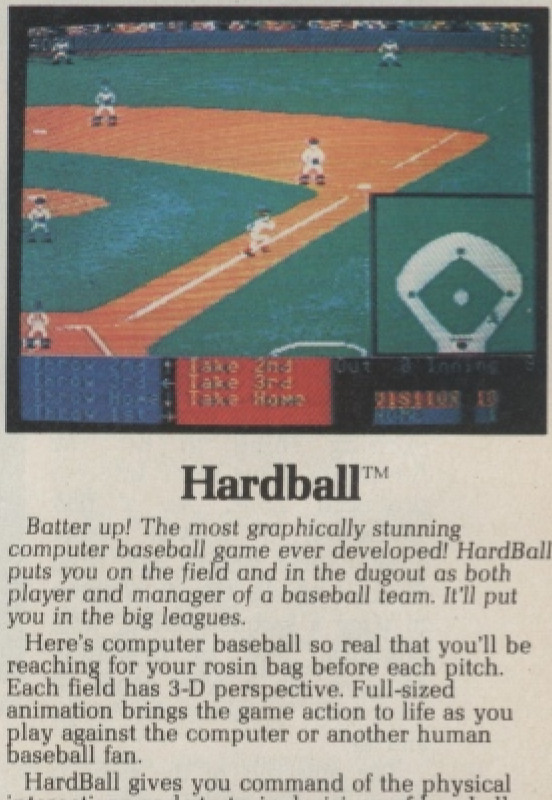


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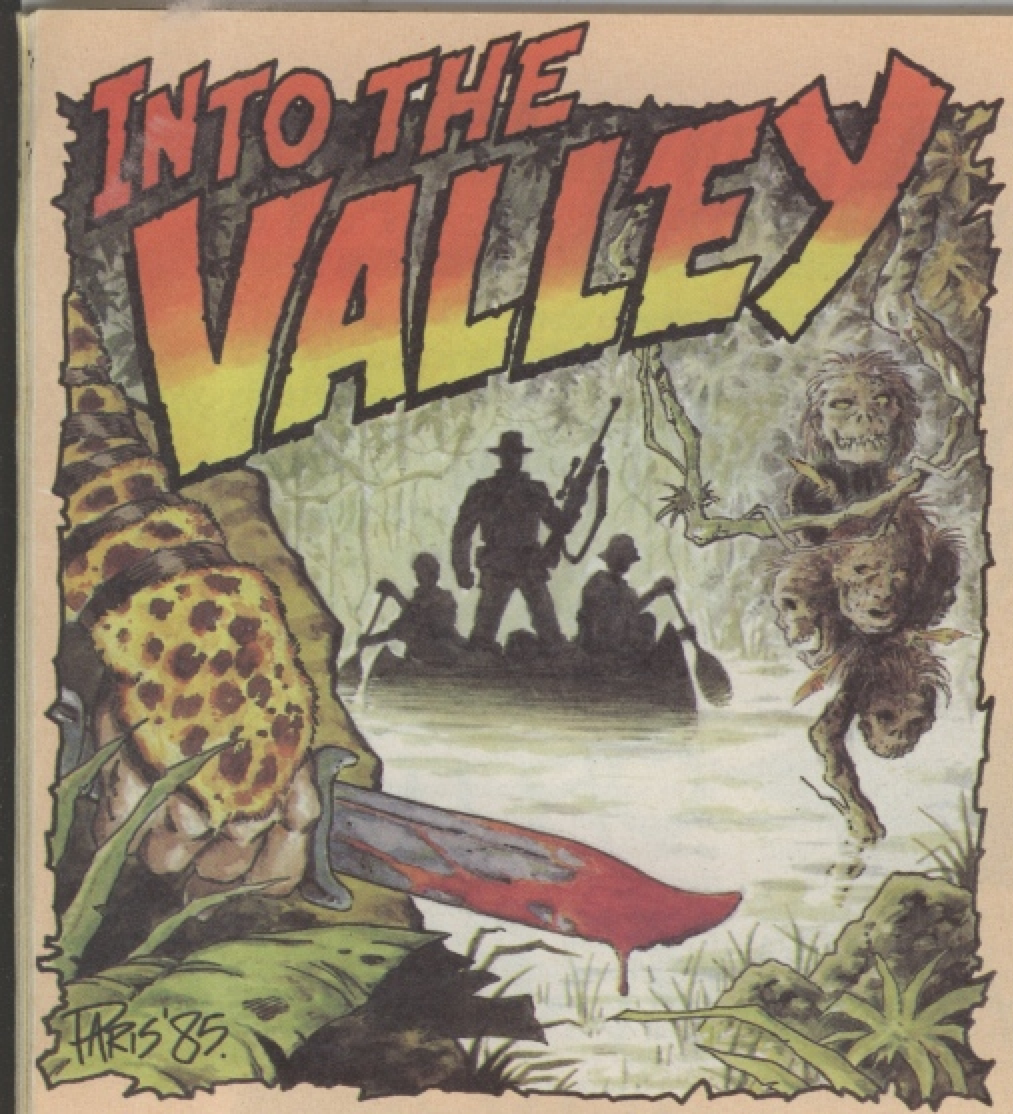
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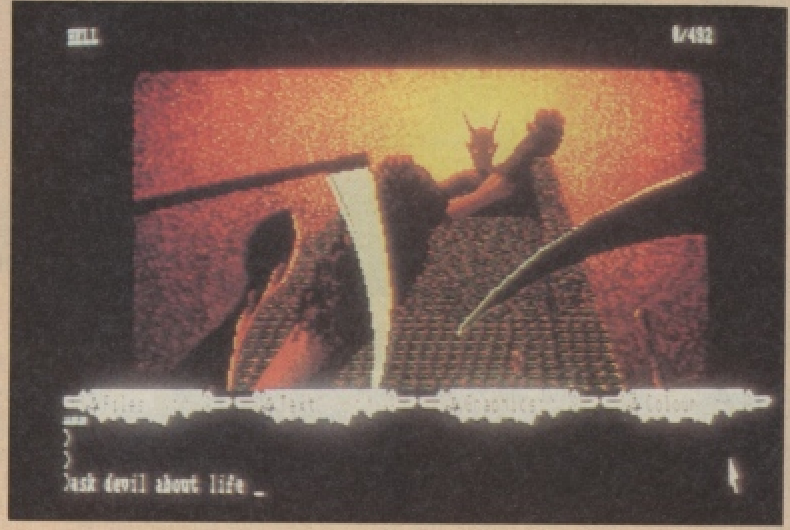
INTO THE VALLEY

BY KEITH CAMPBELL

This month the Valley has a guest reviewer in the form of Keith Campbell, Computer and Video Games magazine's master adventurer. Keith's had a sneak look at Rainbird's *The Pawn* and grappled with the Fantastic Four in another Questprobe adventure. He also can't put down *Rebel Planet*, the latest in the Fighting Fantasy series.

The Pawn
GrA/C128: /C64:TA
Rainbird Software
Price: N/A disk only

The Pawn is just about the most exciting thing to hit the Adventure scene since Infocom produced *Zork*. As a text adventure, it arrived rather quietly some months ago, from Sinclair, on the QL. It is about to stage a second-coming, with graphics, and to deafening applause, on a wide range of computers, including the Amiga and 64.



Beware hell's "sharp, shining scythes".

The objective of the game is not at all clear at the outset, but it is fairly obvious that trouble is brewing in the shape of Farthington Real Ale. This product has displaced the Kingdom of Kerovnia's strong malt whisky, along with its producers, the Roobikyoub dwarfs. King Erik's land is in a state of ferment (so to speak), and it's citizens are becoming rebellious, a situation of high (specific?) gravity?

As you wander the forest paths of Kerovnia, chances are Kronos, the evil magician, will zoom up, comfortably seated on his nifty stone hovercraft. It's you he is after, and he has a proposition to make. Decline to accept it, and he will keep pestering you, from time to time. Continue to refuse it at your peril! So, eager to please, off you go in search of a Princess.

All adventures, however larger, have a finite map, and come across Honest John, a salesman with a cart, you may ask: HOW MUCH IS ALL ON THE CART EXCEPT THE one of the skills in designing it, is to make the boundaries seem natural. There is nothing more disconcerting than coming up to a dead end in the middle of an open plain! *The Pawn* achieves this outrageously! "Notice! This is the southern edge of the Adventure. No artefacts may be taken beyond this point." And before you lies: a dotted red line!

The sense of humour running throughout the game, makes it entertaining, as well as puzzling, to play. Commands that most games forget come in for special treatment. For example, if you speak to someone, but forget to address them in the correct mode, you are asked "Are you talking to yourself again?" If you were to answer YES, most games would fail to recognise the word. Not so Pawn! "Just checking," comes the reply.

This mischievious but puzzling plot, is enhanced, if not, in fact, made possible, by an incredibly intelligent parser developed by Magnetic Scrolls, the team who wrote the game. Over three years in the making, it will handle the most complex of commands with an apparent ease.

If you don't wish to accept what Kronos gives you, you can, for example, reply: I HAVE NO INTENTION OF TAKING IT with no trouble! Should you (object) EXCEPT THE (another object) . . .

GET THE KEY. "Which key?" At this point you can

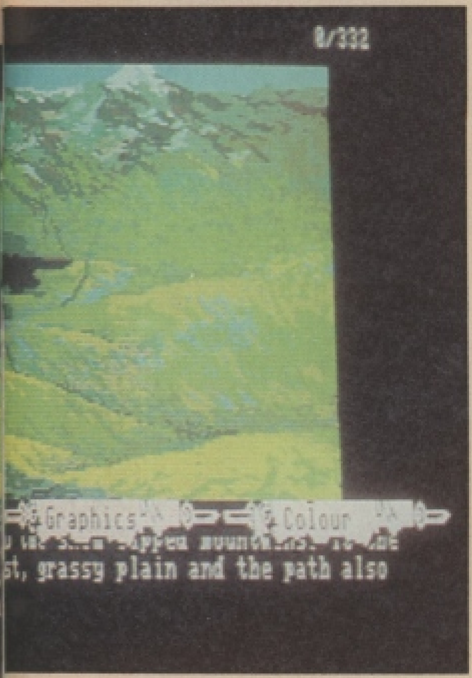


You need to talk to "the Guru".



The Pawn begins in this lush, green val

choose between METAL, METAL KEY, or, if it is in your pocket, THE ONE THAT IS IN THE POCKET.





Kronoff peers out from the title screen.

In fact, putting things in things is one of the specialities of the parser, and it can cope with 25 levels! Imagine the twisted puzzles that can be concocted for adventurers, with these sort of facilities! What you can do down in the potting shed, will not only amaze you, it will earn you points towards your goal of 350.

There is text galore to read, and every detail seems to be covered, down to an innocent bowl of rice, which, when examined, turns out to be Uncle Ben's Short Grain!

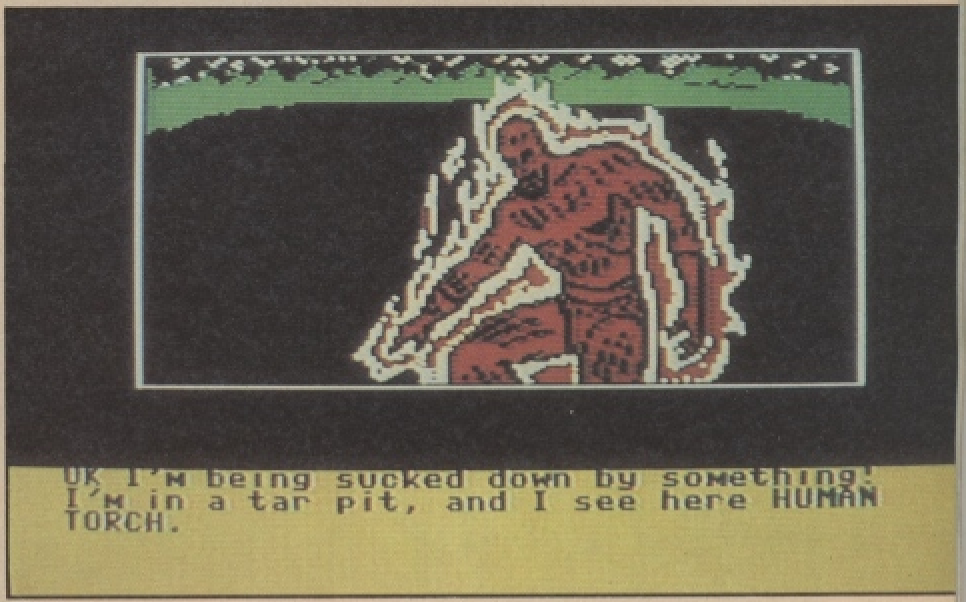
A feast for text adventurers, then. But the graphics on the Amiga are destined to convert the puritans to a new faith! Pictures fit to grace your front-room wall are to be found here, and they can be slid up and down the screen, so that the graphics/text boundary is left just where you want it. They can even be turned off altogether, if you do not appreciate art.

Not all locations have a picture. They contain so much detail they won't all fit on one disk, so only 35 pictures accompany the 100 or so locations in *The Pawn*. Although the screen shots shown here are taken from the Atari ST version, the Amiga graphics, not quite ready yet, will be almost identical.

Most versions will be released around June, and to buy one for the Amiga will set you back about £25. The C64 version will be in text-only, and a separate C128 version, may or may not have graphics — that is yet to be decided. Non-graphics versions will probably be priced in the region of £15-£20. Graphics or text only, if you have one of these machines, don't miss *The Pawn* — at any price!

Graphics	★★★★★
Playability	★★★★★
Puzzleability	★★★★★
Overall	★★★★★





Top: Meet super villain the Ringmaster. Above: The Torch gets heated.

Questprobe 3: The Fantastic Four
US Gold
GrA
Price: £14.95 disk/ £9.95 cass

Sharpen your wits, Scott's back in town! After more than a year with nothing new from Scott Adams, Marvel greats The Thing and Human Torch have arrived to follow in the footsteps of Hulk and Spiderman.

Pitching you in at the deep end, (literally) Thing is up to his neck in liquid tar, and sinking rapidly. Twenty false moves, and he's sucked under. "Blub! Thing dies". Torch, can only stand by and watch, powerless, it seems, to help.

Yet saving Thing is not the main objective of the game. The evil Dr. Doom has imprisoned Alicia Masters in his castle, and she must be rescued.

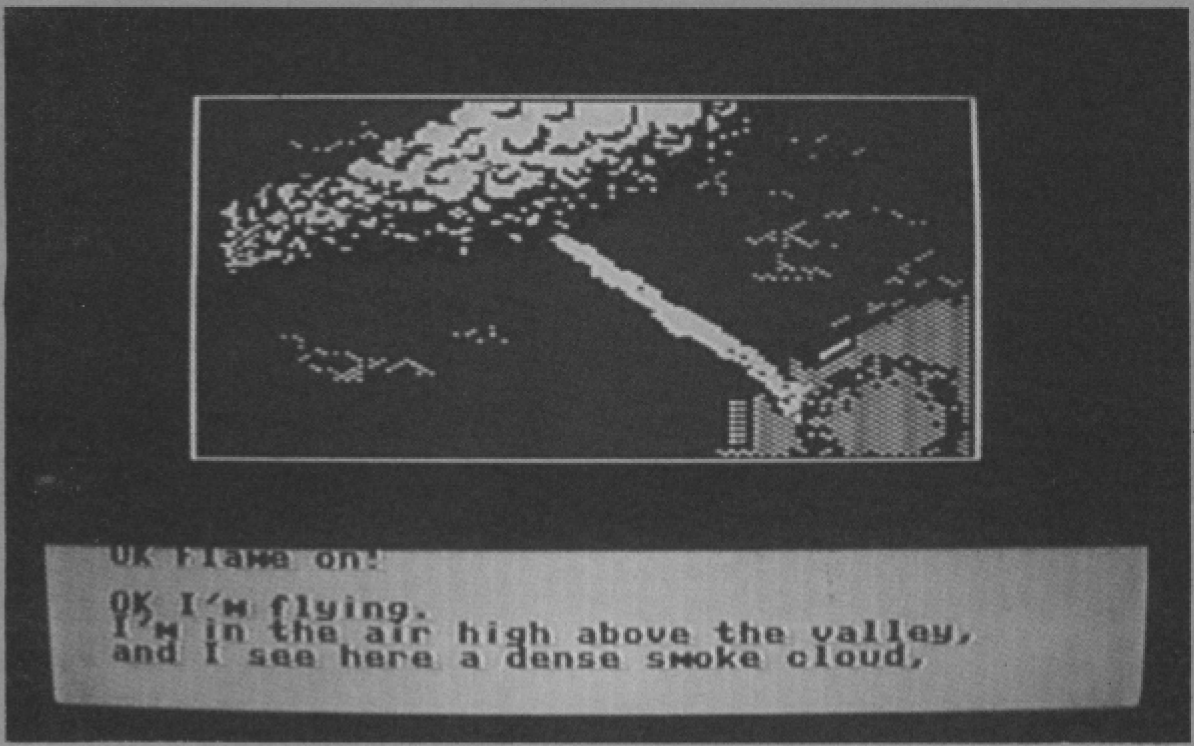
The castle entrance is efficiently guarded by Blob, a nifty character, with the habit of dodging anything thrown at him and returning to his post in a flash to prevent unauthorised entry. Another deterrent provided by the resourceful Doctor, is a powerful death ray, giving cover to the castle's air-space.

FF is no ordinary mindbender though, for in this adventure you can take the role of either Thing, or Torch, and swap about at will. Although not the first adventure to be published in the UK with this feature, (but written first), it requires far more interaction between the characters than is the case in *Magician's Ball*, and *Lord of the Rings*.

Neither character can achieve the rescue of Thing alone. Each must work in harmony with the other, with carefully timed moves, to succeed. Equally, freeing Alicia is very much a team effort. And to hope to complete the game, you must understand and master the extraordinary powers of these two Marvel Comics superheroes.

Two versions are available for


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Aerial view of circus.

the 64 — a 'Sagaplus' disk (SAGA stands for Scott Adams Graphic Adventure) produced in the USA, and a cassette, converted completely in the UK. The two differ, not in plot, but in graphics and commands.

The disk graphic are read in as required, slowing the play down somewhat. Mainly shades of brown and blue, they tend to lack colour, somewhat. However, there is some very effective animation, including one really spectacular sequence that explains what is happening far more effectively than words! Once achieved, (and it will take a lot of hard thinking to get there) it will likely bring a smile of smug satisfaction to your face!

The cassette graphics are all held in memory. Their instantaneous display, and fuller colour range, easily makes up for the lack of animation.

Scott's new multi-word interpreter not only understands an adverb, in many cases it requires one, for a command to work in the way you intended. The UK cassette uses a new parser written by Roger Taylor. There are differences, but it would take a lot of playing both versions to find them.

Fantastic Four is possibly a game you will look back on and think: "That wasn't very big!" Scott's games never are — they are concentrated puzzles. But believe me, while you are battling your way through, (and probably overlooking the obvious) you will think it is enormous! Certainly it is every bit as challenging as *Claymorgue Castle.*

Roll up! Roll up! The Ringmaster is about to announce the first act, down at the circus tent . . . .

Graphics	★★★★
Playability	★★★★★
Puzzleability	★★★★★
Overall	★★★★★

Rebel Planet
GrA
US Gold/
Adventure Soft
Price: £14.95 disk

The book Rebel Planet (Puffin Books, £1.75) is one of the Fighting Fantasy series from Steve Jackson and Ian Livingstone, written by Robin Waterfield. Basing an adventure game on a book is continuing to prove a popular format, but perhaps this series of books lend itself to the technique better than most. Rather than a story, you are presented with a brief background, and then read numbered paragraphs. You are routed through the paragraphs by making decisions at the end of each, as to what you would do next — almost like a computer adventure.

The year is 2453, and man has reached out to the distant planets. But the alien war-like Arcadians have learnt from man's technology, created an Empire, and enslaved the human race.

The Earth's undeground resistance movement SAROS, plans to destroy the Queen Computer on Arcadion. Without it, the Arcadians will be finished, since for many years, they are controlled by it, through receivers implanted in their brains.

It falls to you to carry out this dangerous mission, and under cover as a merchant, you set out on a journey to the planets Tropos, Radix, and Halmuris, ferrying cargo from one to the other. In off-duty moments, you must contact SAROS agents, to discover the vital 9 digit binary number that will admit you to the computer complex on Arcadion.

Stefan Ufnowski has adapted the original book, which tends to take itself rather seriously, and injected some new and devious puzzles, and a wicked sense of humour. For example, what more awkward than a parking problem (of your space ship, no less) at the spaceport! And how do you get out of the ensuing row?!

To this he has added his own excellent artwork in the form of computer graphics, many examples of which are animated. The result is an adventure which is both exciting and humorous, and looks refreshingly different from most.

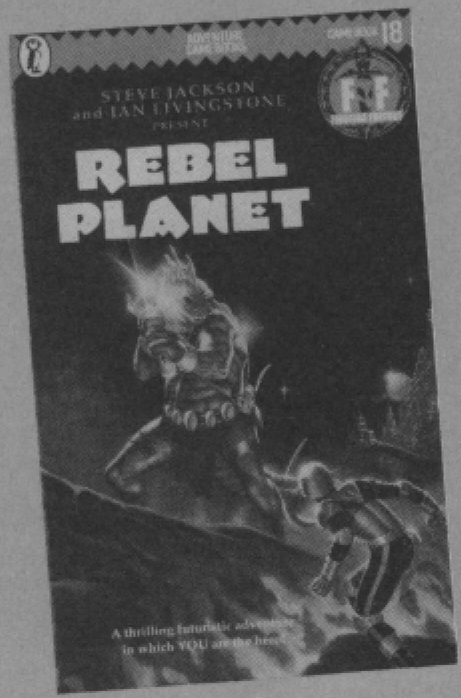
Animation has been seen before on cassette games such as *Gremlins*, but it has been 'flickering' type movement. In *Rebel Planet*, there are sequences of whole-frame animation, and it is all held in memory, along with the text, giving an immediate response.

This is achieved with Adventure Soft's new adventure system, (see Adventure News) and Rebel Planet is the first game to be produced on it. No longer are exits and object descriptions shown, slightly unnaturally, as lists separated from the location text, but lengthy and descriptive text flows together, updating each time the game-state demands it.

By use of what Mike Woodroffe calls 'flannels', the screen display is stage-managed to give a far more readable format. Developed by Roger Taylor on a BBC micro, the text side of the business gives a high degree of compression, and offers a very sophisticated command interpreter.

Graphics are created on a new system running on an Apricot. The two parts of the adventure are then 'squirted' into other computers and merged into a complete game, using a cross compiler where necessary.

Seas of Blood was the first in the Fighting Fantasy series of Adventures, but *Rebel Planet* is quite different. Out has gone the 'combat mode' feature (adventurer's always did prefer their own judgement to the fate of random numbers!) In has come more logical puzzles, more humour, more entertainment. There is not merely a red-



The book of the game.

herring in this game, but a complete hoax which is likely to have you cursing the author when you reach the end! Don't think I'm going to spill the beans, though — I'm just about to scoot off to the Tropos Fission Chip shop, to sample the night life . . . .

Graphics	★★★★★
Playability	★★★★
Puzzleability	★★★★★
Overall	★★★★★

Our adventure chart has been attracting a lot of attention over the last few months — as the only dedicated adventure top ten it deserves to.

The good news is that the chart is now more professionally produced than ever before.

We asked Gallup — the people who produce our arcade games charts to give us a professionally produced top ten.

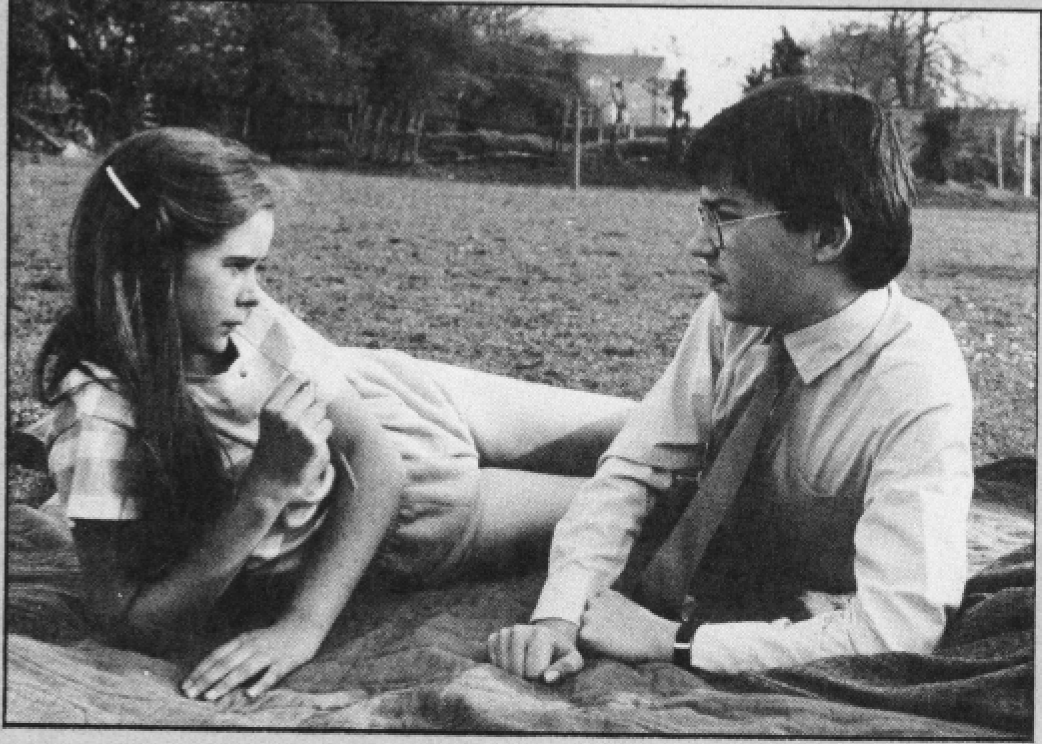
The chart on the right is their first one and represents very good news for Melbourne House with three games in the top ten including Lord of the Rings at number one.

You can read the adventure top ten exclusively in Into the Valley every month.

1	Lord of the Rings	Melbourne House
2	Mugsy's Revenge	Melbourne House
3	Worm in Paradise	Level 9
4	Asylum	US Gold
5	Quest for the Holy Grail	Adventuresoft
6	Mind Shadow	Activision
7	Red Moon	Level 9
8	Mordon's Quest	Melbourne House
9	Terrormolinos	Melbourne House
10	The Fourth Protocol	Hutchinson

● ADVENTURE NEWS ● ADVENTURE NEWS ● ADVENTURE NEWS ● ADVE

ADRIAN IS BACK



● **Mosaic Publishing**, the specialist adventure house in interactive fiction, have plans to release *The Story of The Amulet*, based on the children's classic by E. Nesbit. Written by the Ram (*Valkyrie 17*) Jam Corporation, this graphic adventure will allow the player to assume the role of one of four characters involved with the Psammead — a sand fairy who takes them back in history.

The sequel to *Secret Diary of Adrian Mole, The Growing Pains Of*, is due later on. As before, this will be written by Level 9, but will, promises Mosaic's Vicky Carne, feature more decisions and puzzles than its predecessor.

Last in the currently planned Mosaic catalogue, comes a computerised version of the age-old radio favourite, The Archers. In similar format to the Mole series, this also will be written by Level 9. Are they serious?

● **Further news on** Adventure International. It has ceased trading. For Adventure International read US Gold, and Adventure Soft. Brian Howarth has left Mike Woodroffe's operation for a new career in business software, whilst Mike and his wife Trishia, have formed a new company, Adventure Soft Ltd.

Roger Taylor (of *Denis Through the Drinking Glass* fame) has joined them to produce a new enhanced Adventure System.

Adventure Soft will continue to convert Scott Adams adventures, including future Questprobes, and will be producing their own adventures, next planned release being *Temple of Terror.*

● **Compunet are offering** Quilled adventure games as downloadable Telesoftware. Offered in both disk and cassette versions, 'Quill Corner', as Compunet call it, kicks off with two titles.

The Staff of Law is described as a tough game, packed with puzzles suitable for seasoned adventurers. For those tired of saving the world, and seeking relaxation of a more intimate kind, *Parisian Nights* is said to offer some 'rather naughty problems'.

● **A whisper** or two has been echoing around the Valley in the last couple of weeks.

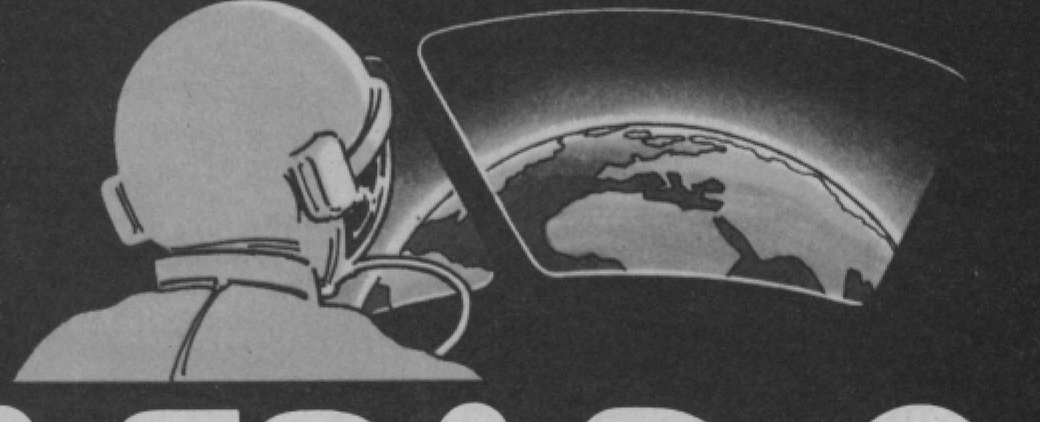
Can't say who, or when, but Isaac Asimov's classic sci-fi yarns look set to reach Commodore adventurers soon. So confident is the software house concerned that its bid for the licence will be successful, development of the first game is already, unofficially, under way.

● **"Any ideas** for a licenced adventure scenario?" a person from a leading Adventure house asked us. I plucked a new TV series out of the blue. Alarm bells rang! "What have you heard?"

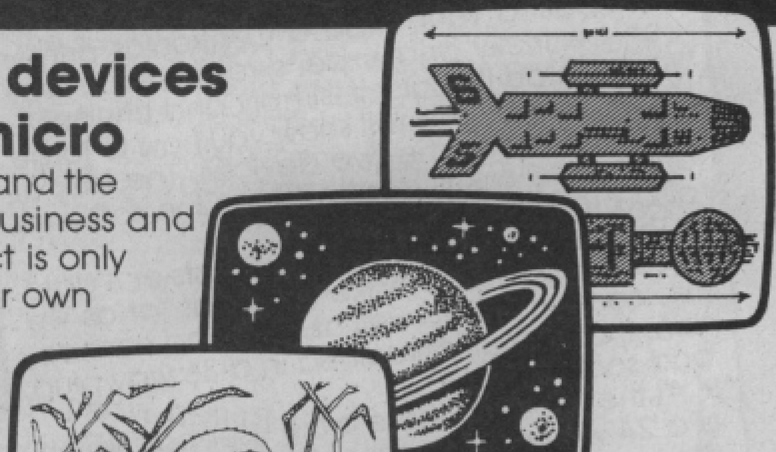
"Nothing!" I replied, "but it struck me as a good idea!" So good, it seems, that they already have someone working on a storyboard for the game! Drinkers of Cola may well smell a rat. More news soon.

● **All parodies** have a strong element of admiration in them and this is certainly the case with *Bored of the Rings*, the popular send-up originally released on the Spectrum. 64 owners can now have a laugh at Tolkien's expense as well — CRL have released the game — price £7.95.

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SPECIFICATIONS

Resolution 1280 × 1024 pixels	**Output rate** 2000 co-ordinate pairs per second	**Origin** Left-hand corner or selectable
Repeatability 1 pixel	**Interface** Parallel	**Dimensions** 350 × 260 × 12mm

Computer magic

Here it is, our final installment of magical tricks and routines for your Commodore 64. Go on, type them in and get yourself a free Centronics interface, an auto-line number routine, horizontal scrolling and list freezing.

Easy Centronics Interface

Connecting your 64 to a Centronics printer can be tricky and expensive. Here's a way you can do it yourself, simply and cheaply.

This magic spell will show you how to forge a link between the two devices. The task of driving the link is dealt with by the software also provided.

The Centronics interface consists of 8 data leads and 2 handshake leads (as far as we are concerned) as well as 1 ground connection, that are all contained in a 36 way plug and socket.

At the C64 end there is the User port which is a 24 way edge connector on the back of the beast.

All that you have to do to make them talk to each other is to make up a lead to connect them together.

The following three diagrams show the Centronics socket as it appears at the rear of the printer, (fig. 1) the User port edge connector as it appears looking into the back of the C64, (fig. 2) and a simple diagram showing the connections that need to be made between the two.

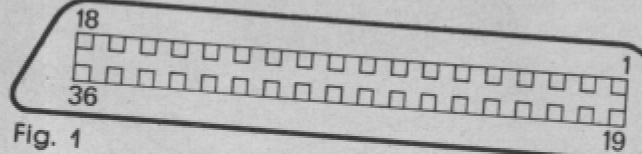


Fig. 1

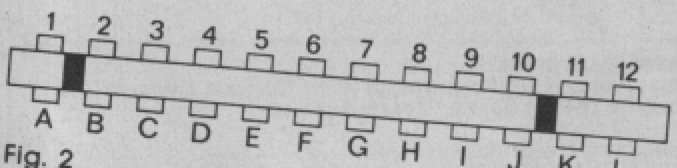


Fig. 2

PRINTER		C64	PRINTER		C64
1	—	M	7	—	J
2	—	C	8	—	K
3	—	D	9	—	L
4	—	E	10	—	B
5	—	F	16	—	A
6	—	H			

Fig. 3

The driver software

Here's the software you'll need to drive your new DIY Centronics software interface.

The listing below contains a block of machine code which is loaded into memory starting at location 49152, when the program is RUN.

All you need to do to use the machine code is to type in the following command:

SYS 49152

After you have entered this command any characters that would normally be sent to the screen will also be sent out to the user port on the back of the C64 in Centronics format.

The routine is designed to toggle, so all you have to do to switch the printer off again is to repeat the SYS 49152 you used to turn it on.

P. Cornes
Staffordshire

```
10  FOR C=49152 TO 49238 : READ B
20  POKE C,B : NEXT C
30  DATA 162,0,142,1,221,202,142
40  DATA 3,221,173,2,221,9,4
50  DATA 141,2,221,173,0,221,9
60  DATA 4,141,0,221,173,38,3
70  DATA 174,85,192,141,85,192,142
80  DATA 38,3,173,39,3,174,86
90  DATA 192,141,86,192,142,39,3
100 DATA 96,141,1,221,72,138,72
110 DATA 173,0,221,41,251,141,0
120 DATA 221,162,2,202,208,253,9
130 DATA 4,141,0,221,173,13,221
140 DATA 201,16,208,249,104,170,104
150 DATA 76,50,192
```

Centronics print routine.

Auto line-number

Why bother typing in program line numbers when you can use a routine that does it automatically?

To use the program, type it in or load it and then type RUN and press Return. After this, all you have to do to call up a line number is to press the space bar with the cursor in column 1 on the screen.

Executing a break instruction will disable the routine. You can do this with SYS 2048. To resume from where you left off type SYS 49166. To start AUTO numbering from 10 again type SYS 49152.

M. Metcalf
Tyne & Wear

```
1  Z=0
2  FOR X=49152 TO 49256
3  READ Y : Z=Z+Y : POKE X, Y
4  NEXT X
5  IF Z < > 13046 THEN PRINT "SORRY —
   ERROR IN DATA. PLEASE CHECK
   AGAIN." : END
6  DATA 169,48,133,2,133,4,133,5
7  DATA 133,6,169,49,133,3,120,169
8  DATA 27,141,20,3,169,192,141,21
9  DATA 3,88
10 DATA 96,165,211,201,1,208,6,169
11 DATA 60,197,197,240,3,76,49,234
12 DATA 169,0,133,211,169,48,162,4
13 DATA 213,2,208,5,202,224,255,208
14 DATA 247,232,134,198,160,0,136,181
15 DATA 2,153,119,2,200,202,224,255
16 DATA 208,245,230,198,169,32,153,119
17 DATA 2,162,1,246,2,169,58,213
18 DATA 2,208,9,169,48,149,2,232
19 DATA 224,5,208,239,76,49,234
20 SYS 49152
21 NEW
```

Auto line number routine.

List pause

The following is a machine code routine that loads at address 49152 and allows the function keys F1 and F3 to be used to control the rate of scrolling when listing a program.

The F1 key causes the listing to halt for as long as you hold your finger on the key. The key F3 causes the program to list very slowly, one at a time while you hold it pressed.

M. Metcalf
Tyne & Wear

```
100 POKE 251,248
200 FOR A=0 TO 22 : READ D
250 POKE 49152+A,D : NEXT A
300 POKE 774,0 : POKE 775,192
400 DATA 72,165,197,201,4,240,250
410 DATA 201,5,208,8,165,251,133
420 DATA 162,165,162,48,252,104,76
430 DATA 26,167
```

Slow listing.

Advertiser

Ever wanted to make a whole line of text scroll across the screen? Well, now you can.

The routine takes a block of text that is stored in the variable B$ and scrolls this text slowly across the top line of the screen.

As you will see when you RUN this routine, the text can be any length up to the maximum string length of 255 characters.

The routine itself can easily be added to any of your own programs. Just copy lines 100 to 210 into your own program and supply any text of your own in place of mine in lines 140 to 170.

Currently the program is written to repeat the text scrolling process over and over. In your own versions of it you would change the line number specified in the IF statement on line 206 to point to the start of your program. And then your program would RUN as soon as the text had scrolled once across the screen.

M. Metcalf
Tyne & Wear

```
80  PRINT CHR$(147);
90  FOR X=0 TO 50
100 IF PEEK (X+1344)=43 THEN POKE
    X+1344,42
110 IF PEEK (1863-X)=43 THEN POKE
1863-X,42
120 NEXT X
130 SS$=""
140 B$=SS$+"      M.METCALF PRESENTS"
145 B$=B$+"— SCROLLING — FOR
    COMMODORE"
150 B$=B$+"MAGIC. THIS PRGRAM
    CAN BE"
155 B$=B$+"INCORPORATED INTO
    YOUR OWN"
160 B$=B$+"PROGRAMS WITH A FEW
    MODIFIC"
170 B$=B$+"ATIONS. HAPPY
    PROGRAMMING."
180 D=0
190 S=1 : IF D=2 THEN 90
200 PRINT CHR$ (19); MID$(BS,S,40)
202 FOR X=0 TO 90 : NEXT X : S=S+1
206 IF S=LEN(B$) THEN D=2 : GOTO 190
210 GOTO 200
```

Text scrolling routine.

MAKE OR BREAK

THE AMIGA ASSESSED

Are you tired of hearing how amazing the Amiga is? So are we, so we've decided to cut through the hype and take a new look at the machine. What can it do in terms of sound and graphics, and what have the programmers achieved with it so far?

AMIGA GRAPHICS

'Amazing graphics' is the phrase most used when people talk about the Amiga. It will be a magnificent games machine, a machine for artists and designers. Remember, Commodore dragged in Andy Warhol to paint an on-screen picture when the Amiga was launched in the States.

It's pretty obvious that the Amiga can do amazing things graphically. The question is whether software developers can actually use them to the full. But let's first look at what makes the Amiga special in the graphics department.

Graphics specs

The Amiga has a maximum of 4,096 colours available to it but will display only 32 or 16 at a time, depending on the resolution. There's a choice of three screen resolutions: 320 by 200 (32 colours), 640 by 200 and the hi-res 640 by 400. Here you're restricted to 16 colours but you get professional quality resolution. Dedicated graphics chips work independently of the central processor, thereby speeding things up, and there's seven layers of sprites.

There's also a curious thing called the 'blitter', which allows large areas of screen memory to be moved and twiddled very quickly. That means images move on the screen faster than the eye can detect. For the technically minded, it claims to plot one million pixels per second. Last but not least, there's a facility for 'grabbing' video images.

So much for the specifications but are they being used to the full?

Graphics Software

One of the more committed Amiga developers is American Software house Electronic Arts who've already spent 1 million dollars on Amiga. Their *Deluxe Paint* graphics package is one of their first Amiga releases and it's already sold 25,000 copies in the States. It's probably the only package produced so far that really shows the Amiga off.

It will do everything you'd expect from a standard graphics package, and a whole lot more. For example, you get eight different brush shapes, and you can take part of a drawing and define it as a brush. Images can be flipped round, rotated and stretched like a rubber band.

Some animation is possible, as well as airbrushing, zoom and magnify. And if you make a mistake, one click of the mouse undoes your last move — just one example of this program's user-friendliness.

Commodore itself is marketing *Graphicraft*. This also allows for defining brushes and simple animation (using moving colours), but is disappointingly less variable than Deluxe Paint. It allows only 320 by 200 pixel screens and a smaller range of facilities — no fast fills, no multicolour brushes, no pattern filling. There's probably more powerful packages around on the 64.





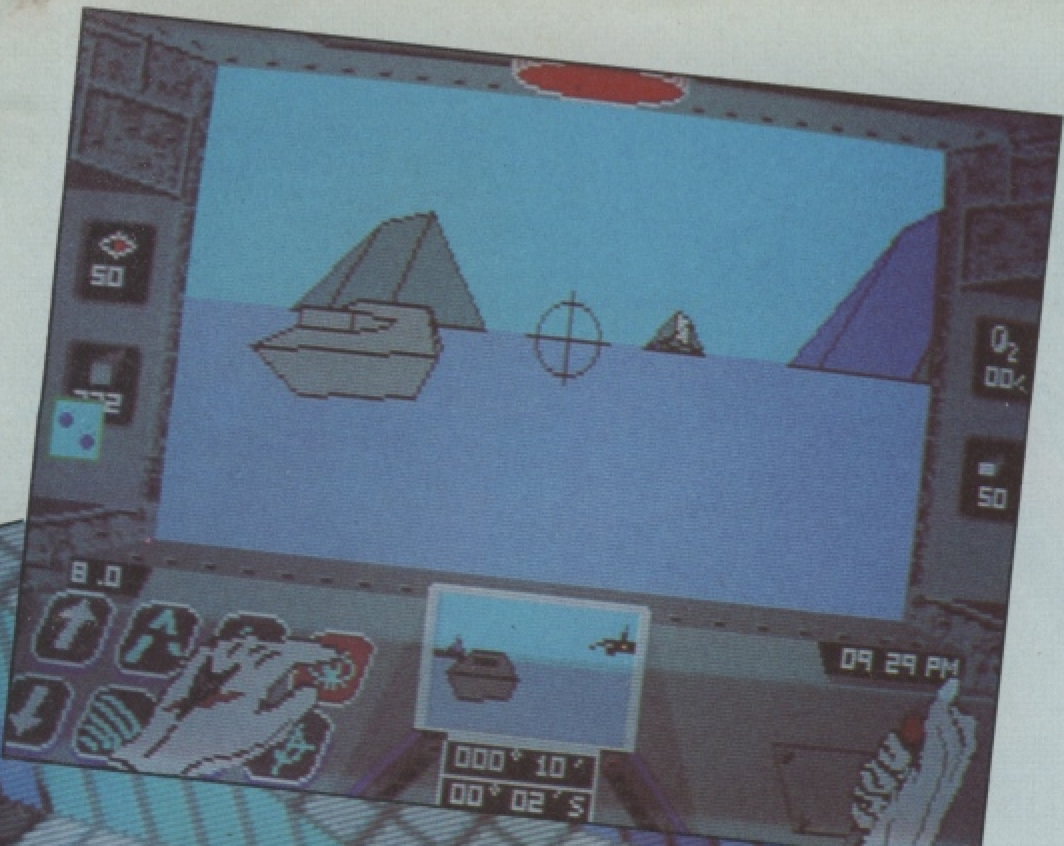
Precision Software has recently announced three new graphics packages for the Amiga, licensed from Californian based Aegis Development Inc.

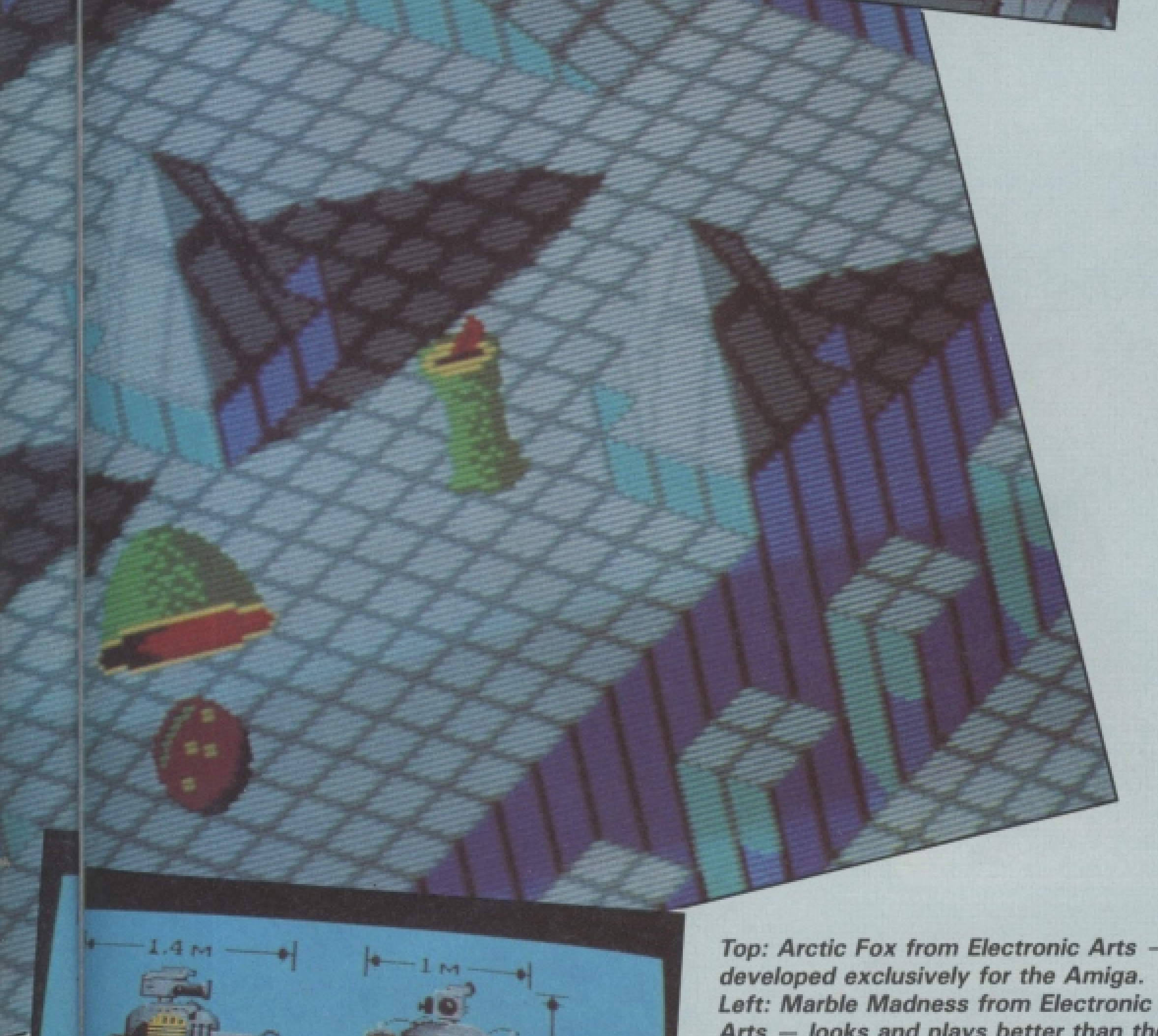
Animator/Images is a low res animation package giving you the opportunity to animate segments of a picture. *Images* also comes on its own as a high res paint programme allowing airbrush, colour cycling and image duplication.

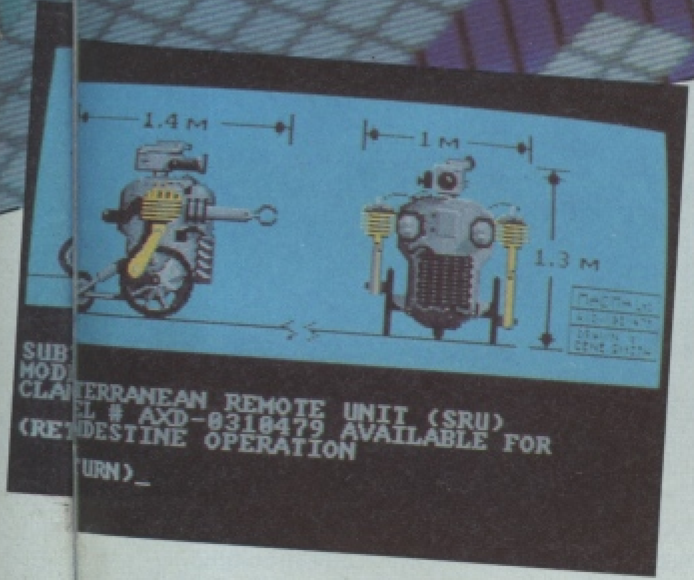
Aegis Draw is a full CAD package intended for home and professional use. It incorporates automatic scaling, near infinite zoom and grid constrained drawing.

Going back to Electronic Arts, they've just announced *Deluxe Paint* and *Deluxe Video* for the Amiga. The former lets you design things like posters, signs, calendards, etc (colour or b/w) and mix unlimited amounts of text and image on the same page.

More exciting, Deluxe Video, lets you connect an Amiga to a video source for the production of things like video slide shows, animations, commercials and business presentations. Video frames can be 'grabbed' superimposed and adapted. All three 'Deluxe' packages should sell in the UK for around £80 each.







Top: Arctic Fox from Electronic Arts — developed exclusively for the Amiga. Left: Marble Madness from Electronic Arts — looks and plays better than the arcade version. Below: Activision's Hacker — disappointing conversion from the 64.

The Games

Electronic Arts, again, is converting some of its older titles for the Amiga. Through Ariolasoft in the UK, it should have *One-on-One*, *Seven Cities of Gold* and *Archon* out in time for early summer. Prices will be a whopping £20 which sounds rather high by 64 terms. And don't expect to see anything really spectacular either. The point is none of these games were exactly classics on the 64.

The company also has *Skyfox* and *Arcticfox* already available in the States. *Skyfox*, though, is grapically not very good but *Arcticfox*, by all accounts, should be much nearer the mark. The classic *Marble Madness* is out soon too. It's superb — for devotees it's probably reason enough to buy the machine.

So what's happening in Britain on the games front? Psygnosis, formed after Imagine folded, has a game called *Brataccas*, developed for he Sinclair QL. Once again, it's a case of adaptations not being able to capitalise on the full power of the new machine.

Other British games will include *Fairlight* from The Edge — we haven't seen a copy of that yet. Rainbird Software is releasing a Starwars-type game called *Starglider* which, although also available on the Atari ST, will be rewritten to take advantage of the Amiga's superior facilities.

Several more games will be available soon. Electronic Arts will release *Adventure Constructor* and *Archon II*. Commodore is marketing a racing game called (imaginatively) *Driving Game*, and the whole Infocom range of adventures is being converted. Also SubLogic's range of flight simulators are ones to watch out for.

For the more serious minded, an American company called Asquared has a frame grabber that lets you take a frame from a video screen and incorporate it into a drawing package. It will work only with American videos though.

The Verdict

The Amiga has been around for quite a while in the States and, apart from Deluxe Paint, no really top-class graphics programs have yet appeared. The same goes for games, where what we've seen are mere conversions that generally don't make use of the Amiga's spectacular facilities. That all sounds very disappointing.

Perhaps it's too early to be critical about the range of software to date, since it takes programmers some time to get to know a new machine. The problem is that time isn't available. The Amiga must produce the goods now or fail forever.

Stuart Menges

AMIGA SOUND

Take a look at the Amiga's sound and music specifications and even on paper it looks like a pretty spectacular machine. It's got four-channel stereo sound output, it can play back digitally sampled sounds, it's got a built-in speech synthesiser and it all runs with the superfast Motorola 68000 chip.

That lot's enough to make any musically minded programmer want to dump the Commodore 64 with its noisy and bad mannered SID chip.

But the reality is different. The Amiga was dreamed up by the same people who made Atari the leaders in the video games. Their idea was to design the best games machine ever; there was probably no real thought for the serious user.

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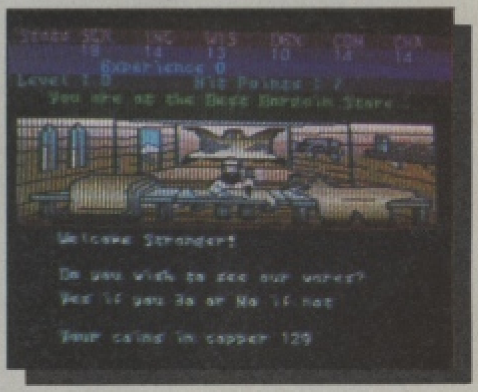
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Combine that with lots and lots of bugs that still aren't solved, and you've dampened down a lot of enthusiasm. So let's forget the hype and take a *real* look at what the Amiga can do for your ears.

Digitised Sound

One of the Amiga's most touted musical features is its ability to play back digitally sampled sounds. (The Amiga is not the first to be able to do this — the Macintosh, introduced in 1984, has very similar abilities). Sampling technology is very hot these days, and it was a smart move to include it.

The sound output is excellent — again, for a games machine. If you have access to first quality samples, you can get a much greater variety of sounds out of the Amiga than you can from the 64's SID chip. But it's nowhere near professional quality.

Although the technical specs for the Amiga are reasonably good (8-bit resolution and maximum for the sampling rate of 28,867 samples per second, if you really want to know), I assume that the less-than-optimum sounds produced by the Amiga result from other design compromises. Top quality filters, in particular, are expensive but essential for good results from a sampling machine.

Your reaction to the actual sounds produced by the Amiga will obviously depend on what you're used to. If you spend your days with a Vic-20, the Amiga will be heaven, if you expect sounds comparable to even an inexpensive synthesizer, much less a professional sampling machine, you will be disappointed.

I appreciate that the engineers had to make some compromises — after all, it is a general purpose computer. With all of the hype, however, I found the quality of sound to be a let-down. Don't buy the Amiga as a serious musical instrument unless you are very undemanding — no matter what the software packages say.

Talk Back

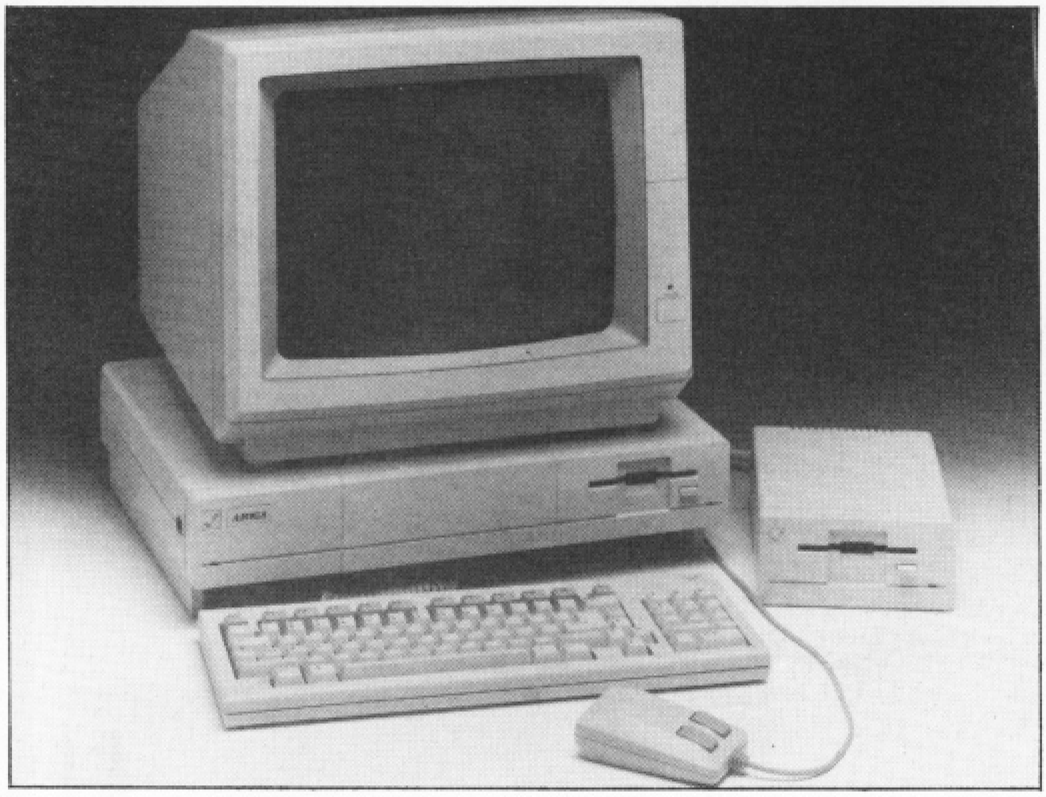
One of the most unusual features of the Amiga is its built-in speech capacity. Using the sample playback technology, the Amiga can be programmed, even in Basic to speak to you — all without extra software or hardware.

The speech software will even tell a program that is using speech how wide a mouth opening is appropriate for a given sound. Watch for some great animation using that feature. You can pitch the voice wherever you want — the demo program from Amiga has male, female, and robot (monotone) voices.

The synthesized speech is clear enough but it sounds like the speaker has a strong accent from some unidentifiable Scandinavian country. Several games available on the 64 have clearer speech. The problem, as I understand it, has to do with putting speech together from its basic units (phonemes) — it's a very difficult process.

What about other musical uses? The Amiga is certainly capable of use as a sequencer or music processor. The 640 by 400 graphics mode will be good for score writing, although there is a lot of flicker in that mode unless you use a special monitor.

The Amiga is a multi-tasking machine, which means that it gives the appearance of doing several things at once by switching from one to the next very quickly; this feature will certainly be used for non time-critical parts of musical programs.



Amiga — just too expensive for the impoverished musician?

Limitations

There are at least two limitations for the Amiga. It doesn't have built-in MIDI ports like the Atari 520ST (MIDI allows your computer to run a synth or a drum machine), and it comes with "only" 256K of memory. Today 512K is considered necessary, partly because the high level languages (like C) that are used for many programs take up a lot of memory.

Both of these problems can be solved by simply buying extra hardware. MIDI interfaces usually cost $80 or more; list price for a memory upgrade to 512K is $200. If the price doesn't bother you, the Amiga, will be a very good tool for sequencing and composition as soon as the proper software is available.

Software

Software is a problem — there isn't much available yet. Why? Because the hardware is still new and the documentation lousy, and because the operating system is still being changed so that it's hard to know how things will work by the time a product is on the market.

There are still lots of bugs to deal with, for example, the operating system I've worked with crashes if you fill up a disk.

Some software *is* starting to emerge. Activision has *The Music Studio* which allows you to compose on the screen and play back your composition with the built-in Amiga sounds or through a MIDI-equipped synthesizer. The program won't let you enter your composition from a synthesizer keyboard, but it does allow the user to create his or her own sounds.

Amateur musicians will probably find this program great fun; professional musicians will probably find it too limiting.

Write your own

The alternative, of course, is to write your own software. C is the language of choice for the Amiga, but Microsoft Basic, now being provided, does offer access to both the voice and sound capabilities.

For music, the SOUND and WAVE functions will allow you to set the frequency, duration, volume, and voice number for each note and to define a waveform for the sound.

You can also, at least in theory, use Basic to produce speech. However, it doesn't seem to work as well as it should.

If you want to write software for the Amiga in C, be advised that the compiler and linker that Amiga provides won't even work without 512K of RAM. All in all, it's the most frustrating system I've ever worked with.

The Verdict

How does the Amiga stack up against the competition? For a musician the Atari 520ST seems to be better value — twice the memory at half the cost, built-in MIDI and the same microprocessor with a higher clock rate. The Macintosh is more expensive and doesn't offer colour, but it is mostly de-bugged and has a fairly large software base.

Don't forget the Commodore 64/128; both offer a lot of power for the price, and there is some software out that really uses those "outdated" machines to their maximum. One thing most musicians lack is money, and the Amiga, with all of its fancy bells and whistles, looks a little pricey for the average musician.

Tom Jeffries

Editor's Note: The above offers are not connected with the present publishers of Commodore User in any way.

Books Books Books Books Books Books

Although the System Guide you get with the 128 is streets ahead of the guides Commodore put out for the Vic and 64, it's still pretty short on practical programming help. So you'll still need to buy books to get the most out of your new machine. We've looked at two of the latest offerings.

OFFICIAL BOOK FOR THE COMMODORE 128

Although this is the 'official' guide to the 128, it's not published by Commodore but the American Sams Publishers. From it's impressive title and the fact that it was written by no less than three people, it sounds like being a pretty good buy. Well, you'd be wrong because it does little more than serve as a more user-friendly version of the 128 System Guide itself.

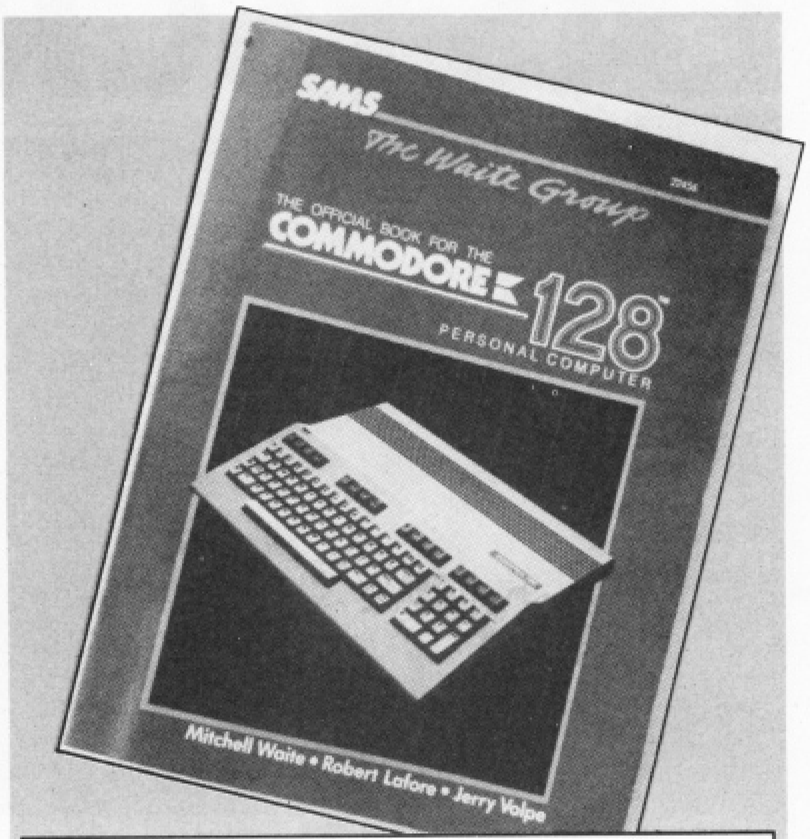
The book does have particularly clear and helpful sections on using the 128's immediately accessible music and graphics facilities, but in many ways it is frustratingly uneven.

For example, the reader wanting to explore user-defined graphics (an absolute must in even simple games writing) is told only that it is possible to have several character sets in memory at one time and to switch instantly between them. But you're left hanging with that enticing tidbit, without any practical information on how it's all done.

On the other hand, there are fat and copiously illustrated think-piece chapters on subjects such as business software and exotic peripherals (including the stillborn 1572 fast dual drive) that will hold little interest for most readers.

Better than nothing in some respects, but The Official Book is dreadfully overpriced at £11.95. And it can hardly be worth buying given that Sams' *Programmer's Guide*, giving much more detailed info on the 128's operation will be out soon.

John Ransley



Official Book for the Commodore 128
by Waite, Lafore and Volpe
Pitman Publishing
Price: £11.50

COMMODORE 128 – STARTING BASIC

Glentop's effort is altogether a different basket of chips — and a considerably more appealing one. Those of us who have learnt Basic programming (and most of our bad habits) through trial and error messages will immediately warm to the plain-speaking and purposeful way in which author Sean Gray tackles his subject.

He makes particularly entertaining work of discovering how best to exploit the new Basic 7.0 commands in structured (that is, better flowing and easier-to-read) programming. Surprisingly, his use of the virtually redundant LET statement is rather more difficult to comprehend.

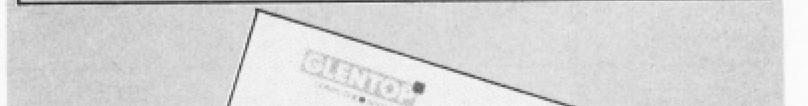
The book presents literally dozens of short routines as well as whole programs designed to show off every bit of magic in the 128's box of Basic conjuring tricks.

Thankfully, his examples are rather more imaginative than the exercises in evaluating the thirteenth decimal point of Pi or calculating how many litres of paint it would take to emulsion an aircraft hangar that many of its ancestors have featured.

The gentle but thorough introduction to Basic principles dealt with, *Starting Basic* goes on to describe in detail — again, with the help of many practical examples, so that you can key and see — the 128's more advanced programming features and vocabulary including hi-res, split screen and multicolour graphics, topdown programming, sound and music commands, handling sequential files, and so on.

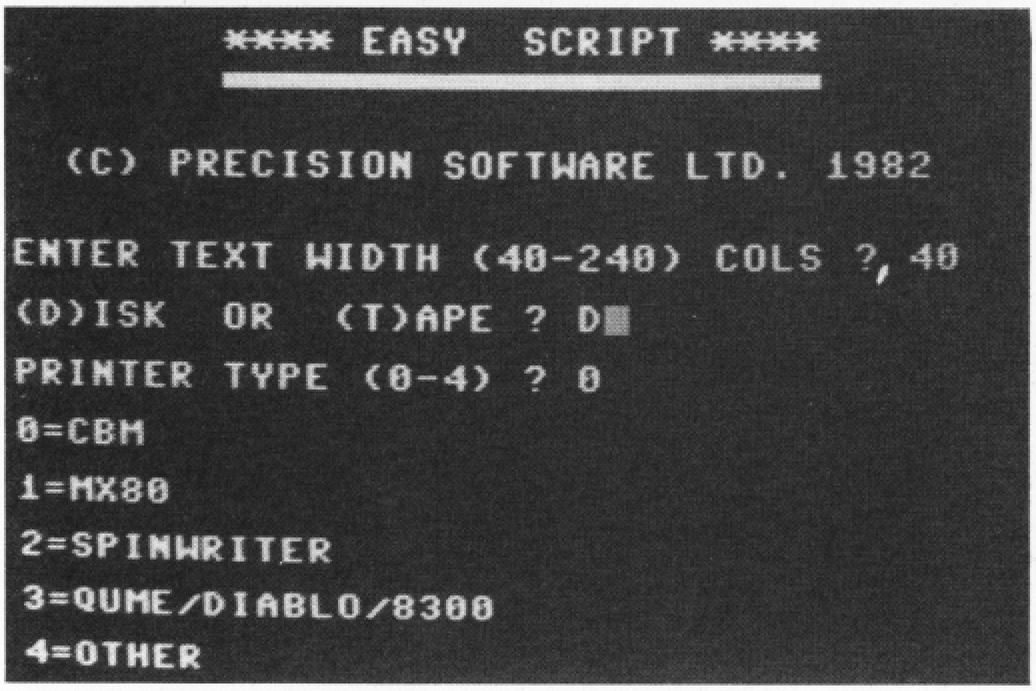
***Commodore 128: Starting Basic* is a work of quality and care, and it's remarkably good value at the price. Nothing better is currently published and, of its kind, it would indeed be hard to improve upon.**

John Ransley



Commodore 128 — Starting Basic
by Sean Gray
Glentop Publishers
Price: £5.95

GET MORE FROM EASYSCRIPT



One of the most popular word-processing packages for the Commodore 64 was — and still is — Precision Software's Easyscript. The package was written by Precision's Simon Trammer and it quickly became a standard by which 64 W/P packages were measured.

The vast user base behind the program has brought forth a flood of enquiries about it. So we've asked Simon to deal with some of the most common problems.

Using printers

To deal with the burning printer question first, Simon Tramner recommends that users should operate Easyscript with the simplest possible printer interface they can — as Easyscript itself can handle all the complicated printer communications.

He says his biggest problem is printer interfaces which think that they are 'intelligent' and do things like converting simple ASCII code that he has sent and turn it into a confusing mix of ACII and CBM code.

If you don't already have a printer interface and plan to get one for your 64 to use with Easyscript, he suggests building your own. Using a simple 64 cartridge port socket on one end and a standard Centronics amphenol plug on the other, — it will cost around £10. Simon suggests you connect or get the cable connected up as shown on Fig. 1.

A more detailed explanation of the user port and its connections can be found in Appendix I (Page 397) of the Commodore 64 Programmer's Reference Guide.

Pin Number & Type	Centronics pin no.
A — Ground	Pin 33 — ground
B — FLAG2	Pin 10 — ACK
C — PB0	Pin 2 — Data 1
D — PB1	Pin 3 — Data 2
E — PB2	Pin 4 — Data 3
F — PB3	Pin 5 — Data 4
H — PB4	Pin 6 — Data 5
J — PB5	Pin 7 — Data 6
K — PB6	Pin 8 — Data 7
L — PB7	Pin 9 — Data 8
M — PA2	Pin 1 — Data Strb
N — GND	Pin 16 — GND

Fig. 1.

If you buy such a cable commercially and it includes its own printer-driver software, he suggests that you don't use the software and Easyscript together. Keep the memory-resident driver software for listing your own Basic software.

If you do have problems running your printer with Easyscript. Tramner says it could well be because it's 'Off-line' when it should be 'On-line'. Although this sounds like a pretty fatuous problem, many people do get confused by the long printer 'time-out' on Easyscript and get to thinking the program has "hung-up", when — in fact — it will work fine if you either put the printer on-line or hit 'RUNS/STOP'.

Play a tune

There are a few mysteries hidden deep in the bowels of the Easyscript code which Simon revealed in our discussions. Did you know, for example, that pressing function key 1 and then hitting the Control Key and the £ sign simultaneously will cause the 64 to play Land of Hope and Glory in three glorious voices?

Joystick control

Did you also know that Easyscript can be used with a joystick? Simon says that if you plug a joystick into Control Port 1, you can use it to move the cursor around on the screen in any direction.

Loading Basic

A little-known feature of Easyscript is that you can load Basic programs into it. There's two advantages to this: you get many more facilities using Easyscript's screen editor when you're writing and editing programs, and you can incorporate whole or part programs into any technical documents or articles you're writing.

How it's all done is explained in chapter 10 of the manual, but it doesn't say how you can do it the other way and read the file back to Basic. That's trickier, and according to Simon, you need to write a program which reads Easyscript sequential text files and "fools" the 64 into thinking that the information is coming from the keyboard.

So you'd open the sequential file in Basic and organise the program such that it reads the file line by line clearing the screen with each line that's generated. The problem is that you also need to delete the program that's actually reading in your Easyscript file as a Basic program.

You can either do this by giving very high line numbers to the Easyscript reading file or by writing the program so that it deletes bits of itself as they are used.

Avid programmers will be able to make a good stab at writing such a program.

Form letters

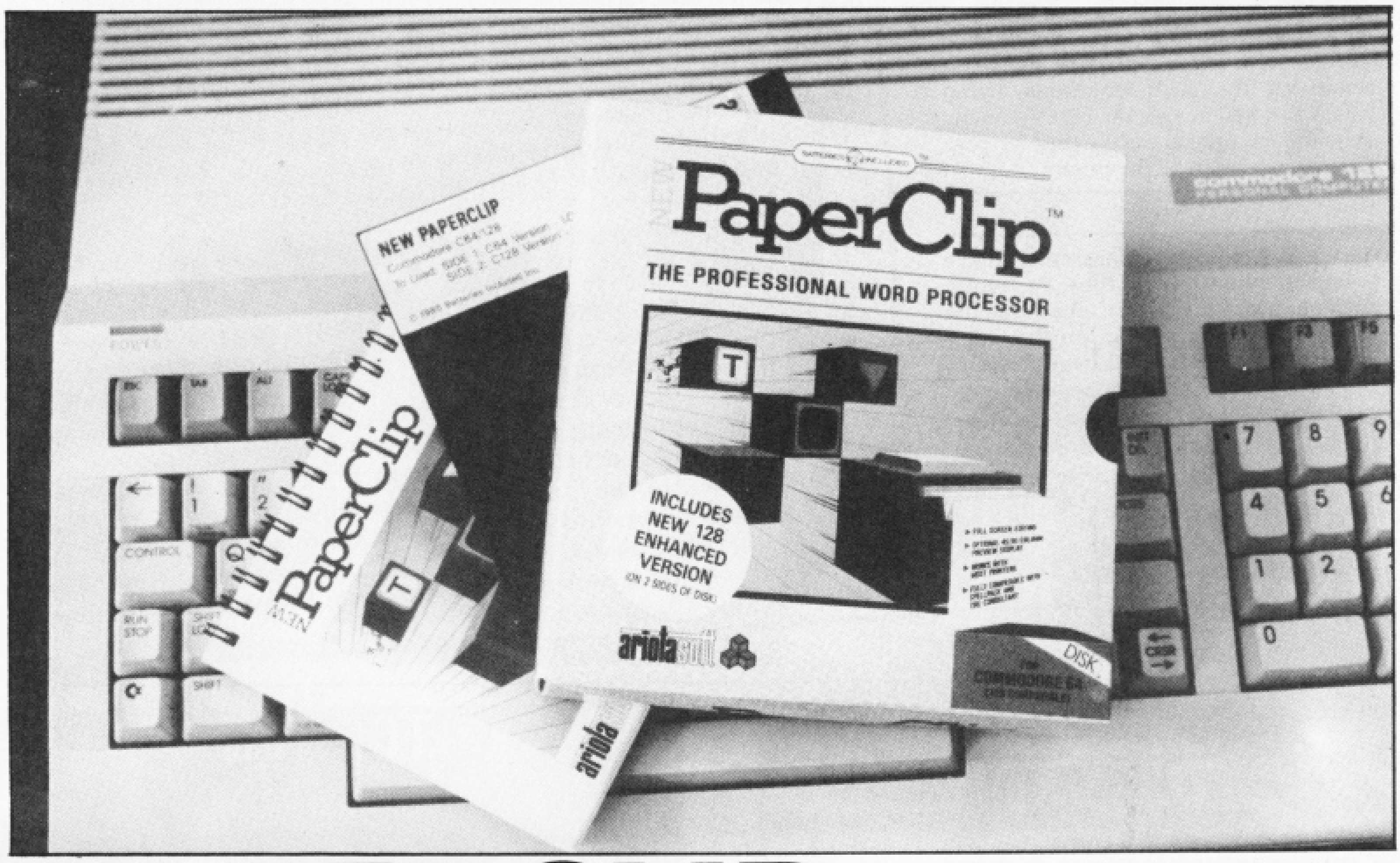
He also had some hints and tips for people doing form letters. Simon suggests that you be very careful about what you put in the form letter 'fill' file. If you don't put something in every name category you've set up, it will get 'confused'.

Say for example, that you had a letter set-up with a four line address and somebody's name and then entered the following five-line address in the 'fill' file;
John James
Commodore Mansions
123 Anywhere St.
Maida Vale
London W9
United Kingdom.

The first letter to John James would be OK, but the next would begin with 'Dear Mr. United Kingdom' — because it would take the name from the first line, print the address using the four lines below it, then move down to the next line.

● *Next month we'll be showing you how to make more of Vizastar.*

Geof Wheelwright



PAPERCLIP 128 REVIVAL

Paperclip has long been one of the classic word-processing programs for the Commodore 64 — and if first impressions are anything to go by — the new enhanced version for the Commodore 128 could gain the same reputation. In fact, you get both versions on the same disk.

Simply known as *New Paperclip*, the 128 version of the program includes support for the 128's 80-column screen, extra memory and built-in in DOS wedge commands. It does, however, make use of the 'dongle-based' protection scheme which is of increasing interest to software houses. This means that one of the 128's joystick ports (in fact, port 2) must be given over to a small ROM cartridge without which the program won't work.

The 64 and 128 versions of the software are on the same disks with the 64 version offering very welcome support for the Batteries-Included 80-column adaptor.

After you have DLOADed the 80-column version of the 128 program, you can switch with impunity between 80 and 40 columns (providing that line length is set to 80 columns or more to start with).

Instead of clogging the screen with lots of on-screen information which should be in the manual anyway, Paperclip starts you off with a clear screen (except for the top two 'status' and 'tab' lines) — offering maximum space for viewing what you have written. And with a full 80 columns to view, there's none of the annoying 'scroll-across' business where you can't even see one whole sentence at a time.

The status line tells you where the cursor is (by line and character number), while the tab line will either indicate the tabs or be used for command queries.

Loading and saving files in New Paperclip requires a bit more care. With its ability to differentiate between upper and lower case filenames, you need to make sure that to retrieve the file 'dBase', for example, that you don't type it in as 'dbase'.

The other major factor which impressed me about Paperclip was its flexibility in handling printers — the bane of any Commodore 64/128 word-processing package. Using what it calls a 'printer file', you can customise Paperclip to handle a huge variety of printers — and to use a range of interfaces. I found that this printer initialisation sequence was pretty comprehensive — although perhaps a little complex — and would cover the difficult business of getting out of your printer exactly what you put into it.

Advanced features

Among the more advanced features of the package which particularly impressed me was the ability to use numeric tabs and columns, so that laying-out a financial report becomes a relatively simple task. The package's column functions also allows for

a degree of alphanumeric sorting, such that a column of names in the middle of a document could be sorted alphabetically without using a database.

The wide-ranging power of New Paperclip is not limited to maths and database functions — it also can handle form letters. Form letters are created by merely placing a series of 'markers' in a letter you want to send and then referencing that letter to a 'variable data file'.

Like Easyscript, you have a choice of outputs for your final work — either to a printer or to the screen. The output to screen on the 128's 80-column screen means that you can see the page — exactly as it will be printed out — page by page before you send it to the printer.

Verdict

There are a good deal many more features which make New Paperclip set to capture a substantial part of the word-processing market on the Commodore 128. Suffice it to say that this w/p is well worth a look for any serious C128 user.

- New Paperclip — 128
- Ariolasoft
  Tel. 01-836 3411
- Price: £44.95 (disk only)

Geof Wheelwright

DOWNHILL SKI-WRITER

A new crop of cheap business packages fills this month's news section. The first is from low-budget kings Mastertronic, who have imported *Ski-Writer* from Prentice Hall in the United States.

Mastertronic claims that "no other program comes close to Ski-Writer's speed or its elegant design that includes automatic word-wrap, automatic reformatting and on-screen underlining. Find, copy, replace and delete any amount of text; centre your headings; justify your paragraphs; change margins as you please."

The word is, however, that Ski-Writer is not a downhill racer — more of a tortoise-like apparition than anything else. Ski-Writer costs £9.95, and Mastertronic can be contacted on: 01-402 3316.

MASTER THE OFFICE

Gemini Marketing, meanwhile, has repackaged some of its previous software to bring two 'compilation' software packages together.

The first is *Office Master* (£25 on tape and disk) which describes itself as a business package that includes 'database', stock control, cash book, final accounts, VAT file and word-processor.'

Like one of those endless combinations of feastings on a Chinese takeaway menu, Gemini is also offering something it calls *Office Mate* (£12 on tape, £15 on disk), which offers a cut-down selection that includes 'database, mail-list, home accounts and word processor.' For more details, contact Gemini at Gemini House, Dinan Trading Estate, Exmouth, EX8 4RS.

BANKER 64

If you are fed up not being able to keep track of your bank account this program may be just what you are looking for. Simple to use as it is menu driven it will hold full details of Credits, Debits, Standing orders and Direct Debits and will automatically place them in date order. It will give you statements to screen or printer including the 1520 plotter printer. Records can be stored on both disk and tape for complete back-up. Entry to any account is by name and Security code which can be changed as necessary. This m/c program is very good value at **£6.25 disk, £4.00 tape.**

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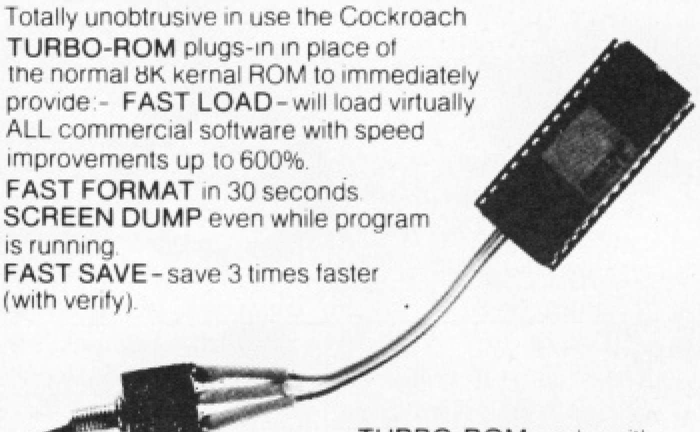
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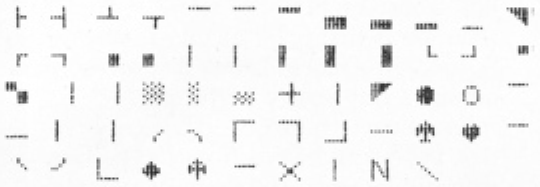
Good news for those of you thinking about buying a printer. Two new top-quality printers have just appeared that feature Commodore interface cartridges. **Bohdan Buciak** checks out both the Star NL-10 and the Citizen 120D.

STAR NL-10 PRINTER

The NL-10 is the latest in cheap and speedy dot-matrix printers from Japanese manufacturer Star. It features high speed, NLQ option and plug-in interface cartridge — and does it for around £280 (including cartridge). In fact, it's an upgrade to Star's earlier Commodore printer, the SG10C.

It looks sleek, clean-cut and robust, although a little deeper than is usual. At the front, there's a daunting panel of buttons and lights. This control panel is one of the NL-10's more unique features.





(UP) (DOWN) (LEFT) (RGHT)
(CLR) (HOME) (INST) (RVS)
The Star NL-10 prints across 80 cols in draft mode
The Star NL-10 prints across 96 cols in draft mode
The Star NL-10 prints across 136 cols in draft mode
This is NLQ (near letter quality) mode
This is NLQ (near letter quality) mode printing italics
expanded text
This is an example of REVERSE *printing*

Star NL-10: prints true Commodore graphics but expands out control codes.

Front panel

Star have sensibly tried to do away with the annoying use of DIP switches and control codes to get at the printer's facilities. So it's fitted a row of six touch-sensitive buttons at the front that let you set all the most useful print functions simply and easily.

So you get printing across 80, 96 and 136 columns, bold print, NLQ and NLQ in italics, paper feed, left and right margin setting, just be pressing combinations of buttons.

Control codes let you access the usual range of facilities: subscript, superscript, condensed, enlarged and super enlarged characters, pica or elite pitch, business or graphics character set, underline, proportional print, italics, reverse, variable line spacing, dot graphics, customised characters and the like. There's also a 'macro' that lets you define a set of codes and call them up whenever you like.

A set of DIP switches is provided at the back (easily accessible) for setting things like device numbers (4 or 5), line feed and international character sets.

In use

So much for facilities, what about speed? Draft mode gives you a nifty 120 characters per second, whilst NLQ produces 30 cps. In both cases print quality is very good, with NLQ mode producing fully formed and more stylish characters (especially using italics) — you probably won't find better at this price. One restriction, though, is that you can't set NLQ to print across a pitch other than 80 characters.

Installing paper, whether it's continuous or single sheet, is simple. But the all-purpose lever on the left is pretty stiff and not quite long enough. At least Star has done away with the typewriter style ribbons it used to employ and has gone for easy to fit cartridges instead — no more inky fingers.

One gripe, though, is the perspex hood which must be in place or the printer just won't work (it touches a micro-switch when down). Since it's not even hinged, the temptation is to dispose of it somewhere in case you drop and break it (I dropped it and broke it). A bigger gripe is that the manual doesn't tell you about the micro-switch, so I spent the first half hour thinking the printer was faulty — probably why I broke the hood.

Although the interface makes the NL-10 work like a true Commodore printer (the same OPEN and PRINT commands), there are a few differences. Primarily, the NL-10 prints only 'true' graphics faithfully; but it expands out all control code graphics — rather like our Easy Enter system. It will even print them in NLQ mode.

For example, you'll get (CLR) instead of the familiar heart-shape 'clear screen' graphic. That goes for colour, cursor and

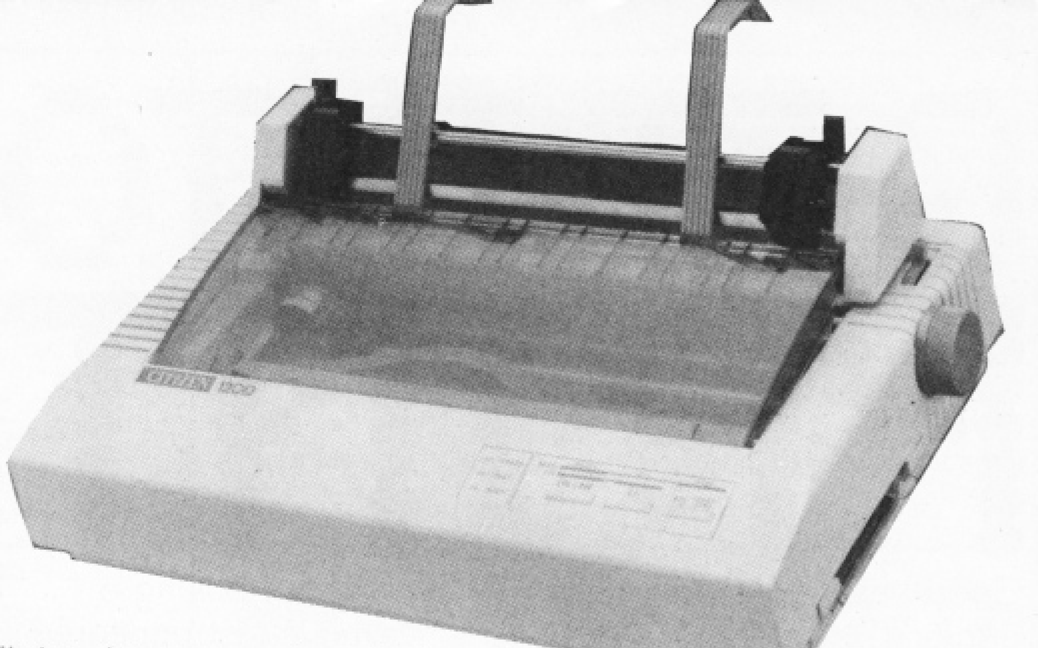
function key graphics too. It all sounds sensible and logical but may put purists off a little.

Conclusion

Star has obviously put a lot of constructive thought into the NL-10 and, to their credit, have solved the problems most new printer users face.

In fact, your only worry with this printer is the price. It's certainly not expensive in terms of quality, but it may appear extravagant when you consider it costs more than a 128 and a lot more than a 64.

CITIZEN 120D PRINTER



This is normal print mode
This is Near Letter Quality mode
This is emphasised NLQ mode
This is an example of reduced text
This is an example of reduced text in NLQ mode
And this is italics mode

Citizen 120D: unassuming little printer packs a wealth of facilities.

Like the Star NL-10, the new Citizen 120D printer features the latest printer innovations: cartridge interface, NLQ option and speedy printing. But at around £235, it's that bit cheaper.

Although our test machine used the Centronics cartridge supplied as standard, a Commodore cartridge will be ready soon (around £25 extra), that prints the complete Commodore graphics set. Apart from that, Citizen reckons it performs just like the standard Centronics interface.

The printer

The 120D is very slim and small. Take the tractor feed off (that's standard, as well as roller feed) and it fits inside a briefcase with room to spare. That's pretty neat, but the overall impression is not one of sturdiness, neither does the small and flimsy print-head inspire confidence.

Like Star, Citizen has designed its control panel to let you access a whole load of printer functions easily. Sadly, Citizen's panel is not as well thought out and doesn't display the option you've selected. You just press the rather confusing combination of buttons and hope for the best.

It takes some getting used to, but it does work rather well. So you can toggle NLQ on and off and set pica, italic, emphasised or reduced print. Better still, the last three options also work in NLQ mode — so you could print, say, emphasised NLQ.

The obligatory DIP switches are sensibly located on the interface cartridge and provide the usual settings for line-feed single/continuous paper and international character sets. There's also two switches for setting NLQ and condensed pitch permanently.

To access this printer's other facilities — variable pitch, expanded print, proportional print and spacing, underline, overscore, reverse, subscripts and superscripts, justification, graphics — you'll have to send control codes, which are compatible with Epson protocols. Like the Star, the 120D lets you string together a series of codes and issue them as one command.

Print Quality

Print speed in normal mode is a nippy 120 characters per second, deteriorating to 25cps in NLQ mode. Although normal mode is rather thin and watery, NLQ mode is good and sharp. It gets better when printed in italics and becomes really full and bold when set to emphasized.

The trade-off, of course, is that you lose out considerably on speed. The consolatiion is that print quality is surprisingly good for a machine that doesn't look like being an impressive performer.

One novel feature worth mentioning is that paper can be fed from the back or up from underneath the body of the printer, thereby saving space since you can stack paper underneath. Trouble is, Citizen don't provide any legs.

Verdict

It's a pity that the 120D looks such an unassuming little printer because it packs in a lot of features, works very quickly and provides good quality print in NLQ mode. The only cloud in all this sunshine is whether the machine can take the rough and tumble, and whether its flimsy looking print-head can manage a really heavy workload. Those are matters a review can never establish.

It's getting easier for Commodore owners to use today's new and high quality printers. That's because they're now designed to use a variety of interface cartridges. Simply choose the Commodore interface, plug it into the printer, and your Commodore micro is immediately compatible — no need for messy and unreliable interface adaptors.

But there are more benefits: these new-generation printers offer not only faster speeds in 'normal' mode but a higher quality NLQ (near letter quality) mode. This option produces fuller more solid characters for correspondence quality text.

But NLQ is always much slower than normal 'draft' mode because the print-head must pass across the line of text twice; the second pass fills in space between the dots, making each character look more solid.

So Commodore users aren't being left out. With big-name companies like Star and Citizen offering Commodore interface cartridges for their products, many more companies are sure to follow suit.

It's worth remembering that such printers imitate Commodore models. So if you're using old wordprocessing software, like Easyscript, set up to output to a Commodore printer, you may not have commands for all the new functions (bold, condensed, enlarged, underline etc) since older Commodore printers couldn't produce them.

- Star NL-10 Printer
  Star Micronics
  Tel. 01-840 1800
- Price: £280 (ex VAT)

- Citizen 120D Printer
  Citizen Europe Ltd
  Tel. 0895 72621
- Price: £235 (ex VAT)
  £25 (Commodore cart)

CLASSIFIED

Bank Manager

BANK MANAGER is the complete home accounting package for your computer. This superb program has no less than 12 menu screens!!, making it very 'user friendly'. All your bank transactions may be entered, including standing orders, direct debits etc. Everything possible is done automatically. Statements etc may be output to the screen or printer. As well as day to day budgeting, **BANK MANAGER** will calculate your mortgage, HP and investments. Utilities include file searching, sorting, amending, screen hard copies, disk commands and much more. Files may be saved on disk or tape. You won't find a better Home Accounts program.

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CBM 64 C2N joystick and £140 of games and magazines still under guarantee and still in box. Cost £400 will accept £200. Wellfeild 821906.

CBM 64 penpals wanted to swap games and info. I have over 400 games. Write to Ian Bell, 10 Morton Court, Blackwood, Lanarkshire, Scotland MU1 97H. All letters answered.

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Commodore 64 user wants to swap new programs with people all over the world. Send your list to: Daniel Lillman, Hoppbane gatan 2 72241 Vasteras, Sweden.

Commodor user wants to know if anyone wants to swap games, tips, programs, and POKE codes. Please write to Alan Harper, 1 Sharyn Road, Kalamunda, Western Australia. All letters answered.

Play Word Dealer (C16 and Plus/4), an exciting word game for up to four players. Four playing levels too! Send cheque/P.O. for £3.25. R. Porter, Woodside House, Abbey Road, Scone, Perthshire PH2 6LL.

CBM 64 disk drive printer £2,000. Software. Lot for £750. Will sell separately. Quick sale needed. Tel. (Andy) Brentwood 233667.

CBM 64 owner wants to swap programs and tips all over the world. Send your list to: Oddharry Bakkli, Lykkmarka, 49b 7087 Sjetnehavgan, Norway. Only disk.

CBM 64 software to sell, swap titles as: Hard Ball, Yie Ar Kung Fu, Uridium and Winter Games. Write or phone Frank Smit, Eikbosser Weg 181 1213RX, Hilversum, Holland. 035 48104.

Reset switch £0.99. Lost programme recall cassette £1.99. Instructions included. For hacking or programming. Immediate dispatch from Steve White, 23 Eastfield Road, Peterborough, Cambs PE1 4AP.

CBM 64 Swedish hacker wants to swap software for the 64. All letters answered. Please write to Per Olofsson Solringen, 13 S55277, Jönköping, Sweden. Only on cassette.

C64 Pengo game. You can break into this game to add more if you want! Disk £3.50 tape £2.50. Send money to Jason Gillwer, 13 Mansfield Street, Quorn, Leics. LE12 8BE.

CBM 64 C2N recorder, 1541 disk drive, 803 printer, joysticks, speech synth, disk and over £200 worth of software. Worth over £600 the lot, will accept £450. Phone 0738 37607 after 6pm.

Norwegian "computer freaker" wishes to swap games/user programs for the 64. Write now!!! Both cassette/disk. All letters answered. Write to: Per Hansen, Hovsetervn. 34, 0768 Olso 7, Norway.

Commodore 710 wanted. (Keyboard, VDU, microprocessor). Daisywheel printer. Tel. Ron Hunt 0379 2264.

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Both programs can be used with all direct connect C16 printers inclusing 1520 printer/plotter. Fast delivery by first class mail. Send cheque/PO to A&C Software, 75 Oakthorpe Gardens, Tividale, W. Midlands B69 2LF.

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Printer Alphacom 81 for 64 or Vic £50 ono. Tel Ryden 0443 227056. Also original Vic games. Send SAE, 1 St Peter's Close, Llanharan, Pontyclun, Mid-Glam.

AD INDEX

Tommy's tips



Terminal Case

Q I purchased a Plus/4 recently but I am now going to upgrade to a 128. Is there any way I can utilize the Plus/4 with the 128?

I have read you can have a main computer (a 128) and a "terminal" (a Plus/4). What does this mean and is it possible to do this with these computers? Also what are the advantages of this? Thanks for a great mag.
Steve Terrington, Leeds.

A When you read about "main computers" with 'terminals' this is normally referring to *multi-user* computers which allow several people to access the computer at the same time. The terminals are just keyboards and VDU screens, normally without any computing power of their own (dumb terminals). Although it is perfectly possible to connect a micro-computer to a large computer and make it act as the terminal, unless the communciations software is very clever the micro-computer will still act just like a dumb terminal.

Both the 128 and the Plus/4 are designed as *single-user* computers and therefore the computer and terminal are in the same box. It is possible to attach the 2 computers together using the User-port, but you would have to write the software to drive the communications between them since there isn't any commercial software available. Doing this could allow you to use the Plus/4 as the 'terminal', reading the keyboard, validating the input etc, and passing data and 'commands' to the 128 (the computer) which then gets on with the graphics, sound or number crunching.

However, I suspect that is a bit too involved for you at present and you will have to resign yourself to the fact that you will have 2 virtually incompatible computers, since software that runs on one will not run on the other (unless it uses BASIC 2.0 commands without any POKEs or PEEKs; highly unlikely in practice).

Funny Noises

Q When I load from disk, after a few seconds, I get a hammering sound and a rapid noise of clicks. This always happens, so I assume that it's just the way it loads. The noise also occurs with some disk errors.

My disk-drive always loads perfectly so I think there is nothing to worry about. But why does it make such a LOUD noise? It sounds very unhealthy!
R. Self, Bromley.

A The noise the drive makes is the protection on the disk being checked to ensure it is not a copy. The 'hammering' is the head drive pulley striking the 'stop' to position itself for track 1; it does this to ensure that the head is corectly positioned before it tries to find a particular track where an error has been placed. Whenever you initialise the drive it does the same thing. It certainly sounds bad, but it's how the drive was designed.

No Goodbyes

Q I own a Commodore 64 and 1541 disk-drive and would be grateful if you could help me with the following problem.

Why does the computer always jump back to the start of a program after LOAD "X",8,1? (where X is the file name). Try this for example:—

```
10 PRINT "HELLO"
20 LOAD "X", 8,1
30 PRINT "GOODBYE"
```

If you run it, assuming the file 'X' is not a BASIC file, say part of a game, then after loading you will cause a loop with "HELLO" being printed, but never "GOODBYE" — or whatever you want on LINE 30 as it is ignored! Is there any way to prevent this?
C. Hacker, W. Yorkshire.

A The Commodore has the ability to 'chain' programs by calling one program from another and then carrying on by running the new program in the Basic area. If you have loaded a re-locatable program using LOAD "X", 8, 1, then you are left with the original program in the Basic area which re-runs from the start again.

Since variables are not reset by this 'chaning' then you can get round this problem by:

```
5 Z=Z+1: IF Z>1 THEN GOTO 30
```

The first time you run the program Z=1, but the second time it runs, after loading "X", the program will jump to line 30 and continue. Alright?

Playback problem

Q Recently, I absentmindedly plugged in my C2N whilst my Commodore 64 was switched on. Since then a small fault has been evident which although not insurmountable causes a lot of frustration.

When I'm loading programs, instead of getting the PRESS PLAY ON TAPE message, the screen goes immediately to the background colour. Provided I press the play button on the tape recorder *all* programs load OK.

Once loaded the Datasette stops as normal but when I then press the stop button on the C2N the cassette remains disabled and I am unable to either fast-forward or rewind the tape.

It seems that a fault in the computer is giving false information about the status of the cassette recorder. What can I do?
R. Howells, Pontypridd.

A The cassette 'sense' line is connected directly to the 6510 CPU chip and it would appear that you have damaged the gate in the chip, leaving it in a permanent 'on' state. The indication to the computer is that the PLAY button is permanently pressed, hence your problems. I regret to say that the only way of solving this problem looks like replacing the 6510 chip in the computer, which if you do it yourself will cost around £23.

Alternatively, one of the many repair companies will be happy to relieve you of between £25 and £35 to do it for you. The chip can be obtained from Video Vault Ltd, Tel. 04574 66555 /67761, who can also quote for the repair or there are other companies such as Mancomp Ltd, Tel. 061-244 1888/ 9888.

Let this also be a warning to other users. *DO NOT REMOVE OR ATTACH ANY DEVICES TO THE COMPUTER WITH THE POWER ON,* because it could cost you dearly.

Running together

Q Please find enclosed two programs I have put together for my C16. I would be grateful if you could tell me how I could get them to run together, showing the graphics and sound together. Here are the two program listings:

```
10 GRAPHIC 1, 1: COLOUR 4, 1
20 S=INT (RND(1)*10+5)
30 FOR I=5 TO 40
40 CIRCLE 1, 160, 100, I, I,,,,
   120/4
50 CIRCLE 1, 60, 100, I, I,,,, 120/4
60 C=INT (RND(1)*16+17
70 D=INT (RND(1)*7+1)
80 COLOUR I,C,D
90 NEXT I
100 GOTO 30
```

and

```
10 VOL2
20 R=INT(RND(0)*10) +1
30 FOR X=1 TO R
40 SOUND 2,345+30*X,10
50 NEXT X
60 FOR X=R TO 1 STEP +1
70 SOUND 2,700+30*X, 10
80 NEXT X
90 T=INT(RND(0)*100) +30
100 SOUND 2,780, T
110 GOTO 20
```

Hope you can help me.
N.W. Edwards, Cardiff.

A You are trying to do two independant things simultaneously, which the average computer finds rather difficult (at least, until the Amiga gets here!). The only way to really combine these 2 programs is to drive the music in machine-code through the use of 'interrupts', but I assume that wasn't really the answer you were looking for. If you want 'random' music at the same time as your graphics program then you will have to accept a more simple sound, otherwise the combined program would be so slow as to be useless.

Try adding the following lines to your first program:

```
5  VOL2: D=7
35 SOUND 2,(50*D) +30* (I/5),8
65 SOUND 2,345-30* (C-6), 8
```

These will give you a 'random' element to the sound, yet still allow the graphics to be drawn at a reasonable speed. If you really want 'games-type' sound at exactly the same time as fast graphics then you will have to learn machine-code first.

Tune a day

Q I own a C16 and I am not bad at programming, but I am no good at making my computer play tunes. So could you please help me by writing a short tune in your magazine to give me some idea how to make my computer play tunes, and me to learn how to write music programs.
J. Cornish, Plymouth.

A The easiest way of playing tunes on the C16 is to create the music as a series of data statements showing the voice, note and duration. This then allows you to have 2 part harmony by using voices 1 and 2 at the same time.

The following short program plays the first few bars of a well-known tune, but lines 10-50 apply whatever the tune.

The data statements are in groups of three; the voice (1 is the bass, 2 is the melody), the note (values are given on page 173 of the user manual) and finally the duration (seconds/60; 15 = quarter note). If you give Voice 1 a duration of 240, you can then play 4 notes on Voice 2 each with a duration of 60 while Voice 1 is still sounding. You won't get to sound like Duran Duran on a C16, but even they had to start somewhere!

```
10 VOL2
20 READ S
30 IF S<0 THEN END
35 READ N,T
40 SOUND S,N,T
50 GOTO 20
60 DATA 2,685, 15, 1, 169, 240,
   2, 739, 60, 2, 770, 60, 2, 798,
   60, 2, 810, 30, 2, 798, 15, 2,
   739,15
70 DATA 1, 213, 120, 2, 770, 30,
   2, 810, 30, 2, 798, 60, 1, 453,
   120, 2, 798, 90, -1
```

Loading tricks

Q What is the significance of the statement LOAD "#", 8, 1? this loads nonsense into the Basic area. Also, I have read that typing LOAD "$$", 8 loads in merely the header of the disk, and the blocks free, instead of the whole directory. If you type NEW, though, you can get it back from memory by typing LOAD "#", 8, 1 again. How come? Combinations of the characters '*', '#' and '$' also provide many strange results.
H. Rennison, Torquay.

A LOAD "#",8,1, does absolutely nothing useful. Since # is the symbol normally associated with a disk buffer in the disk's RAM area it appears to be loading the contents of the first buffer. As for the "$$"; if you haven't already realised it, you can load parts of a disk directory using 'wildcards'.

LOAD"$:C*",8 for example, would give you a directory listing of all the files whose first letter was C. Using "$$" just means that you have not given the disk any information (it ignores the second $ sign) so no filenames appear; you still get the header and free blocks lines though.

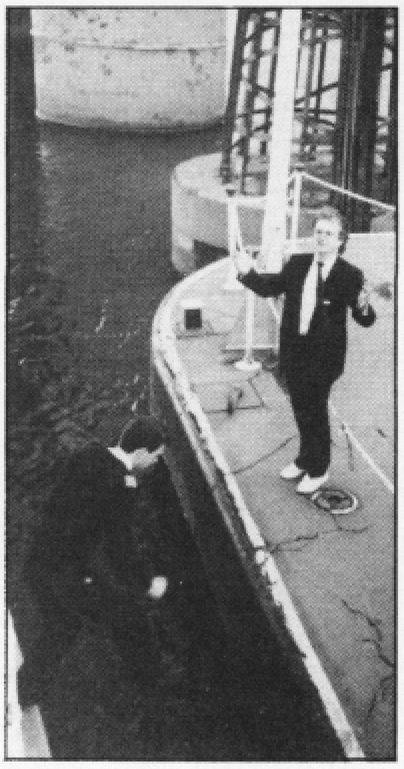
Take a tip from us, Tommy's Tips are the best. When it comes to answering your technical and programming queries, whether they're on the 64, 128, 16 or Plus/4, Tommy's your man. Go on, write to him: Tommy's Tips, Commodore User, 30-32 Farringdon Lane, London EC1R 3AU.

Hot Shots!

By Mike Pattenden



This man is Rick Wakeman. We thought we'd better tell you. He was one of the pre '76 old muso generation who went around writing songs about King Arthur that lasted for a whole album. He's scratching his head because even he can't understand why Commodore asked him to help promote their Music Expansion Kit. Bring back Rolf Harris and Tony Hart we say.



Splash! A young steward sacrifices his life to save hundreds of passengers from a watery death as thousands panicked at the prospect of Soft Aid hero Rod Cousens' ego sending the SS Golden Joysticks to the bottom.

Ah there you are. Couldn't keep away could you? Pull up a chair and I'll tell you some tales from the software world. Are you sitting comfortably? Then I'll begin. . .

April Fool's Day jokes were pretty poor this year I thought. Polaris ferries, Ken Livingstone's wardrobe legacy and proposals to shift the earth's axis all fell flat. None fell more flat in the game industry than the news of a company called **HardSoft** who were about to explode onto the market with a batch of sidesplitting games with titles like *Aids Attack*, *Seal Cull* and *Motorway Maniac*. The man behind such a convincing wind-up turned out to be none other than **Commodore Horizontal's** editor **Chris Jenkins**. Weak Chris, weak. . .

• • •

Ocean are undoubtedly the most accident prone games house around. Big boss **David Ward** managed to dislocate his shoulder whilst re-enacting a scene from *Winter Games* on his skiing holiday. I never realised such afflictions could be catching though, until I heard that his companion who turned out to be Centresoft boss Anne Brown's sister broke her ankle as well. . .

• • •

I'm glad you reminded me about **Anne Brown** because a hotshotophile who shall remain nameless told me that the sales manager of a large retail chain refers to US Gold's *Legend of the Amazon Women* as **The Legend of Anne Brown**. What does he mean. . .?

• • •

I was amused to receive a hostile letter from the **Porsche** car manufacturers complaining of misuse of their company's trademarks. How can they be so mean after all this business has done for them? The closest I have come to one myself was the dinky toy model Ariolasoft presented to me after their racing day last year.

• • •

I was even more amused to see the effect buying **Sinclair** had on **Amstrad's** share price. It fell by 10p. . .

• • •

Cartoon fans take note that Melbourne House have their **Asterix** game out in June.

• • •

Virgin boss and SDP youth policy coordinator **Nick Alexander** was spotted recently releasing 650 balloons outside the Houses of Parliament. An act so symbolic even Nick didn't know what it was for.

• • •

Last month saw out that most prestigious of ceremonies, those Oscars of the software world, the Computer and Video Games Golden Joystick Awards.

The lavish affair took place on one of Virgin's riverboats that cruise up and down the Thames holding parties for debs and sloanes. So what was a cowboy industry like ours doing on it? When I boarded that vessel it resembled something out of those old riverboat movies, there were that many hustlers and gamblers on board.

The clink clink that could be heard on the embankments was not the sound of glasses being raised in merriment, but the sound of dozens of spurs chiming on the decks. The last time I saw so many pairs of cowboy boots was Nashville.

Compering the ghastly affair was jolly Jools Holland wearing one of those loud spivvy suits he has made so fashionable whilst presenting Channel Four's The Tube. C&VG editor Marshall Metcalfe presided over the affair.

The meal and ceremonies went off disappointingly without a scrap of bad behaviour from anyone. I was upset because I was forced to sit next to industry eccentric Mel Croucher who kept stopping the conversation to talk into a portable tape recorder. So unprofessional. My other table companions were so dull I've forgotten who they were.

The coveted awards went to the following lucky recipients: Best Strategy Game: *Theatre Europe*; Best Adventure: *Red Moon*; Best Arcade Game of the Year: *Commando*; Best Original Game: *Little Computer People; Best Programmer was Steven Crow* a man condemned to obscurity until *Starquake*, his Bubble Bus game, is released on the 64. Best Software House was *Melbourne House*; Best game of the year was *Way of the Exploding Fist*.

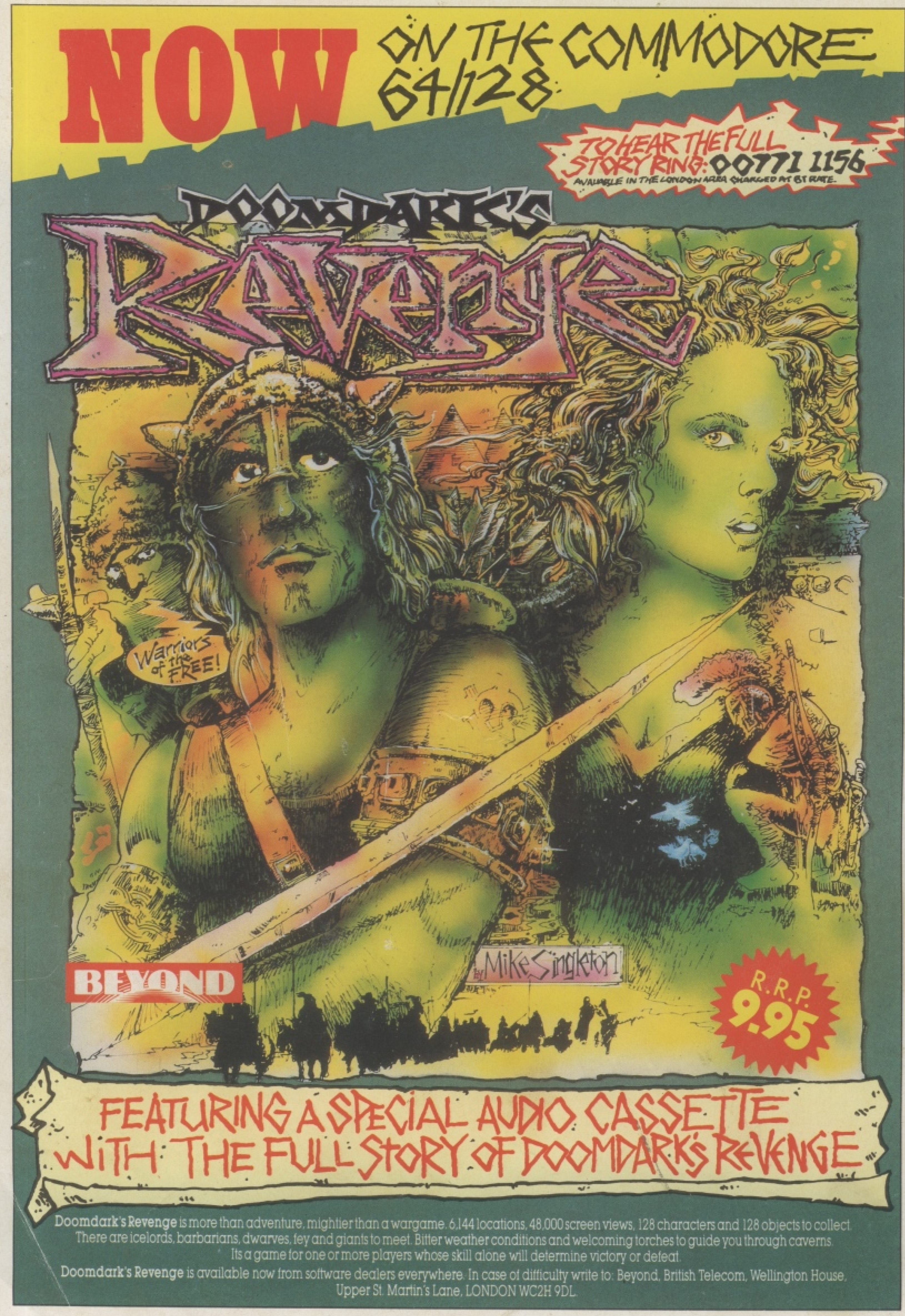
Afterwards I went around presenting a few awards of my own. The Hotshot Golden Slug Award for Latest Ever Game went to US Gold for *Tigers in the Snow* — first advertised in the press as long ago as 1984. Orpheus ran away with my Lead Balloon Award for *The Young Ones*. The Golden Cockroach for Bug of the Year went to Melbourne House's *Gyroscope*. Finally the Annual Hotshots Ron Atkinson Golden Cheque Book went to U.S. Gold.

Paula Byrne and Geoff Heath of Melbourne House show off the awards for Game of the Year and Software House of the Year. Jools Holland shows off his shiny suit. Yeurgh!





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